STATE STREET

2015 STATE STREET CORRIDOR STUDY

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PREPARED FOR:

PENDLETON INDIANA
HISTORIC TOWN

PREPARED BY:

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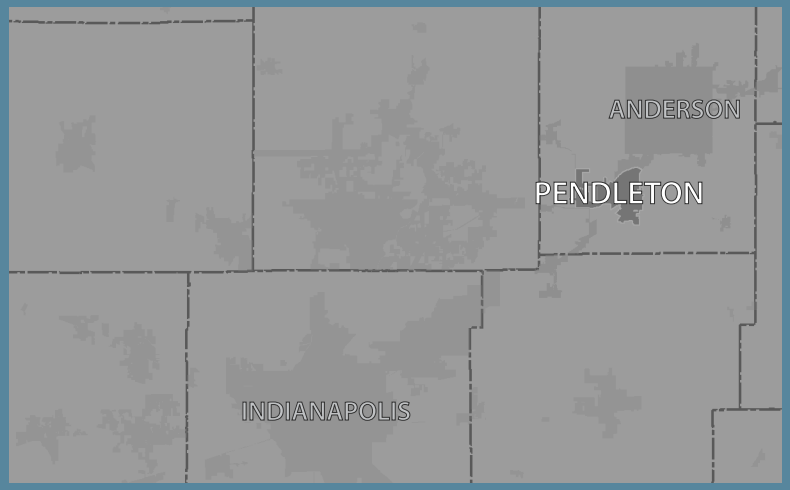

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DRAFT DOCUMENT FALL 2015

1 PLAN INTRODUCTION

CORRIDOR PLANNING

A corridor links people, goods, services, and employment together. As the major connection for people and places in a community, corridors often provide a central identity and shape the quality of life for nearby residents. A corridor plan identifies the key opportunities and issues that a given corridor faces and builds on the existing structure to strengthen community assets. Although traditional corridor plans have focused on transportation issues and improving the efficiency of automobile traffic movement, there has been a recent shift in the understanding of the use and impact of corridors. The most recent corridor plans follow a multi-modal approach to transportation, considering non-motorized transportation in addition to motorized and examine the land use and economic factors of a corridor to develop a strategy that addresses the long term needs of a community. State Street will play a vital role in the future of Pendleton as a major driver for economic development. In order to understand the future implications of the corridor, the first step is examining the existing condition of State Street.

INTRODUCTION

State Street is the major east-west arterial through the Town of Pendleton; linking the west neighborhoods to the east development along State Road 67, across Interstate 69 and through the downtown. On a regional scale, State Street becomes State Road 38 which directly links Pendleton west to the City of Noblesville and east to the City of New Castle. As a major connector to Interstate 69, State Street is the main thoroughfare for both commuter and commercial traffic in Pendleton. State Street plays a vital role in the everyday lives of Pendleton residents and impacts not only transportation decisions, but also land use decisions. Due to the high traffic volumes and location of State Street through the Pendleton downtown, there are significant obstacles to consider along the corridor.

In addition to the use of State Street for daily commuter and commercial traffic, a majority of Town events are held in downtown Pendleton and Falls Park, located just north of the downtown along Pendleton Avenue. The event traffic compounds issues for State Street users and businesses. Due to the frequency and impact of events on State Street, the corridor should also be considered for these uncommon traffic patterns.

Figure 1.1 Pendleton, Indiana view from State Street

CORRIDOR PLAN AREA

For the purposes of this study, the “State Street Corridor” will refer to the, approximately 3 square mile, area within a quarter-mile distance of State Street between County Road 800 West and County Road 250

West. Although the study focuses on the entire corridor, there are four distinct segments that operate in different capacities. These focus areas are each being examined individually throughout the process as well. Focus Area One is the furthest west and incorporates the area between County Road 800 West and County Road 600 West. It is largely a residential and agricultural area. Focus Area Two is centered on Interstate 69 between County Road 600 West and West Fall Creek Drive. It consists of a majority of Pendleton's major commercial facilities due to the proximity to Interstate 69, but it also includes the main apartment complex within Pendleton. Focus Area Three spans from West Fall Creek Drive to East Street and includes the entire downtown, with a mixture of residential and commercial spaces. Finally, Focus Area Four is between East Street and County Road 250 West. Focus Area Four is centered on State Road 67 and has a mixture of institutional, retail, and residential uses (Figure 1.2).

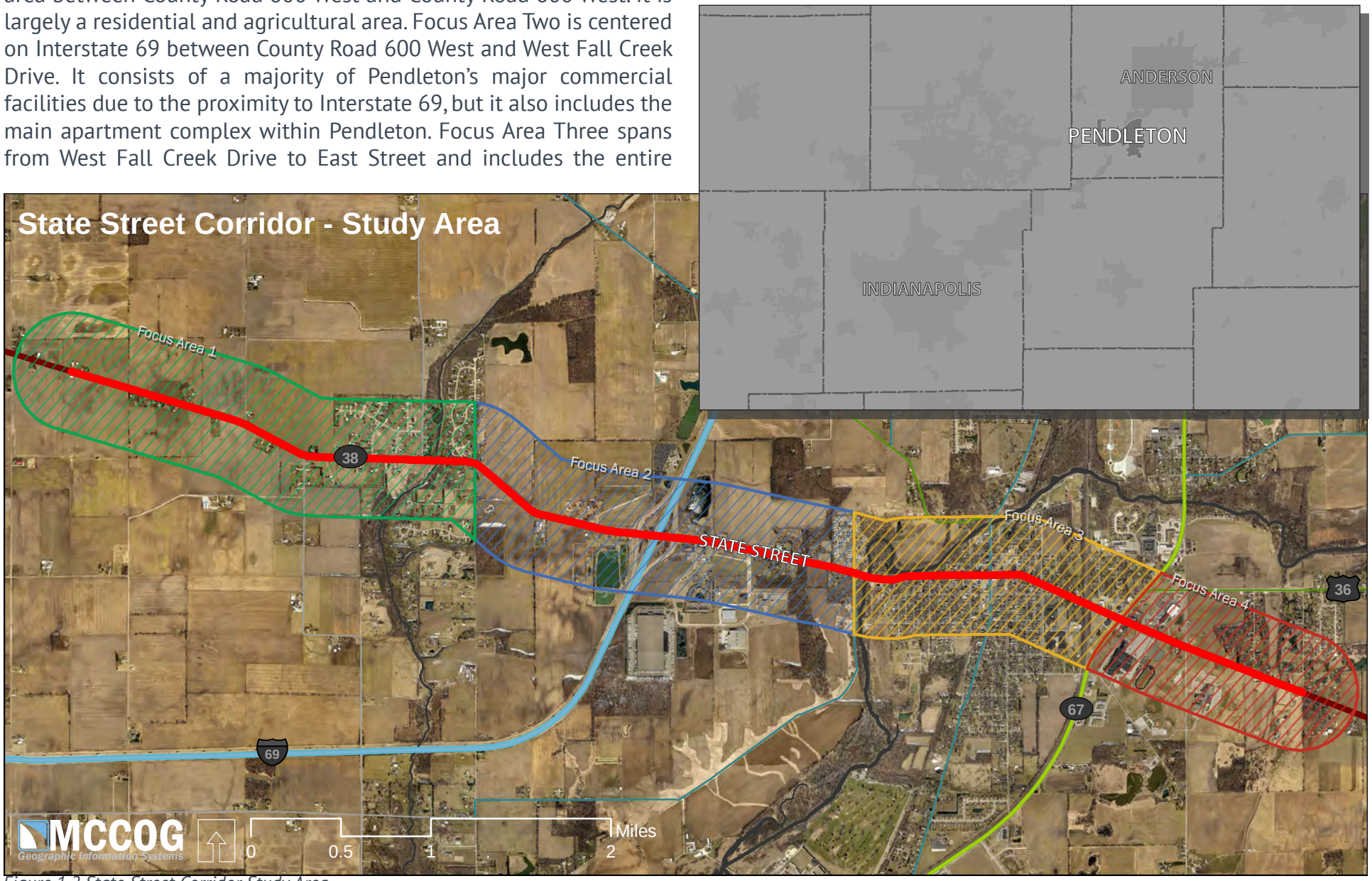

Figure 1.2 State Street Corridor Study Area

HISTORY

From its historic beginning in 1818, Pendleton has supported a unique quality of life and spirit of community. It was the beauty of the falls that attracted Pendleton's early residents, and a large influx of pioneer families built homesteads nearby. The town draws its name from Thomas Pendleton, an early property owner who helped develop the area into an actual town. Enterprising locals built mills along Fall Creek which attracted a great deal of business, and in 1823, Madison County was formed and the first county seat was established in Pendleton.

Early business flourished, especially after the Indianapolis and Bellefontaine Railroad, later known as the Big Four Railroad, was completed in 1850. December 24, 1853, the Town of Pendleton became incorporated, and soon after, the gas boom of the early 1900's began. Several manufacturing businesses located within the town, but as the gas supply depleted, many were closed or forced to relocate. However, Pendleton remained viable due to its location along a principal line of the Interurban Train System, operated by the Indiana Union Traction Company.

In 1918, a project was proposed to the town board to acquire the falls and old stone quarry for renovation into a public park. The project was approved, and in 1921, Falls Park opened to the public. The old stone quarry was converted into a fishing pond, and the area below the falls was converted into a swimming pool. Visitors came from all over Central Indiana to enjoy the park's natural beauty. Falls Park became a regional center of recreation and famous tourist attraction across the nation. The park continues to be a cornerstone of the community.

Over the years, the Town of Pendleton became a transportation hub with the intersection of four major state highways, a high speed rail corridor, and an interstate crossing through town boundaries. US 36, State Road 67, State Road 9, and State Road 38 were developed and converge on the east side of Pendleton. In the 1960's, Interstate 69 was constructed on the west side of Pendleton and continues to be a major influence upon the growth of the town. The rail line originally ran along Pendleton Avenue through the downtown area, but was rerouted in the 1910's to its present location. This line is now owned and operated by CSX Transportation, Inc.

Special interest in preserving the historic character of the community led to the acceptance of much of the downtown area, including Falls Park, as a historic district listed on the National Register of Historic Places in 1991. This followed with the formation of a Historic Preservation Commission and the adoption of design guidelines for the Historic Preservation District to help preserve and maintain the historic character of the district. Pendleton's downtown areas and surrounding neighborhoods retain much of the historic charm of the town.

Vehicular transportation in Pendleton is centered upon State Street and State Road 67/State Road 9. These two arterials provide direct access to Interstate 69. Until the early 2000's, State Road 38 ran through downtown Pendleton as State Street and was maintained by the Indiana Department of Transportation (INDOT). The Town pushed to have the section of State Street from Interstate 69 to State Road 67 relinquished so that truck traffic could be detoured around the downtown. This has alleviated much of the truck traffic and has had a positive effect on the downtown business area and historic residential neighborhoods.

The Town of Pendleton has significant pedestrian infrastructure that supports pedestrian activity. The downtown business and historic residential areas of town have a significant sidewalk system. In the early 2000's, the Town and MPO made a significant investment in a trail system in Falls Park. Over four miles of off-road bicycle and pedestrian facilities were constructed using Transportation Enhancement Funds through INDOT. The Town continues to invest in this system and to expand it. In 2012, the Town was awarded Safe Routes to School (SRTS) Funds and Congestion, Mitigation, and Air Quality (CMAQ) Funds through the State and MPO to connect Falls Park to the Pendleton Heights Middle School and High School.

2 COMMUNITY PROFILE

DEMOGRAPHIC TRENDS

The Town of Pendleton is located in southwestern Madison County and has a population of 4,218. The median age is 40.7 years old according to the 2009-2013 American Community Survey (ACS). In comparison to Madison County and the Indianapolis-Carmel-Anderson Metropolitan Statistical Area (MSA), the median age of Pendleton residents is above median age in both areas which have a median age of 39.4 and 35.9 respectively. The majority of residents' are between the ages of 25 and 54 years old, but those below the age of 20 are continuing to grow in size (Figure 2.1). 87% of Pendleton residents' are white with 6% being Black/ African American, 6% American Indian/ Alaska Native with the remainder of the percentage split amongst Asian, Native Hawaiian/ Other Pacific Islander, and Other Race. In comparison to the other two regions we see that Pendleton is similar in race distribution, but has a slightly larger white population.

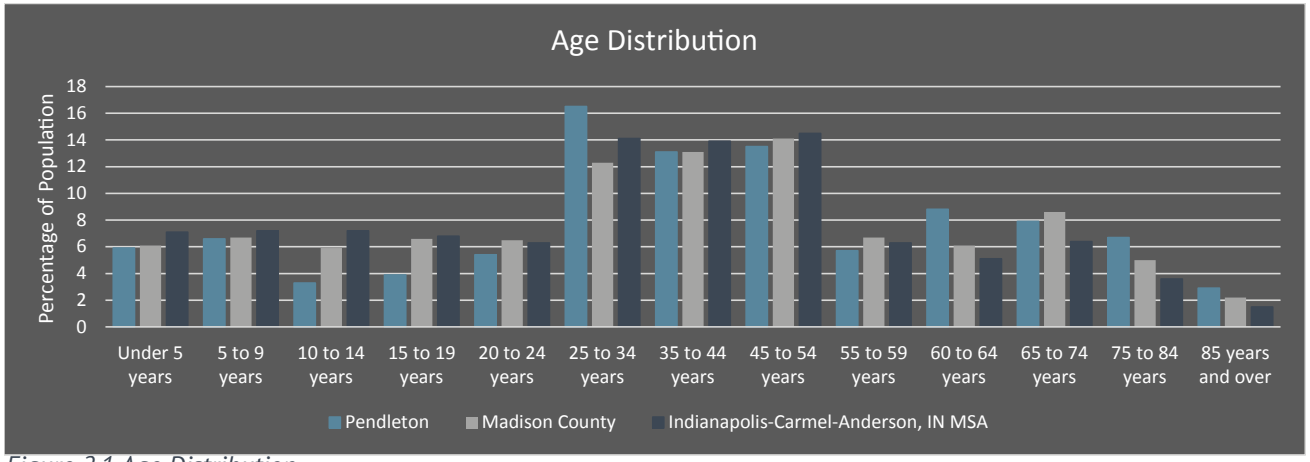

Figure 2.1 Age Distribution

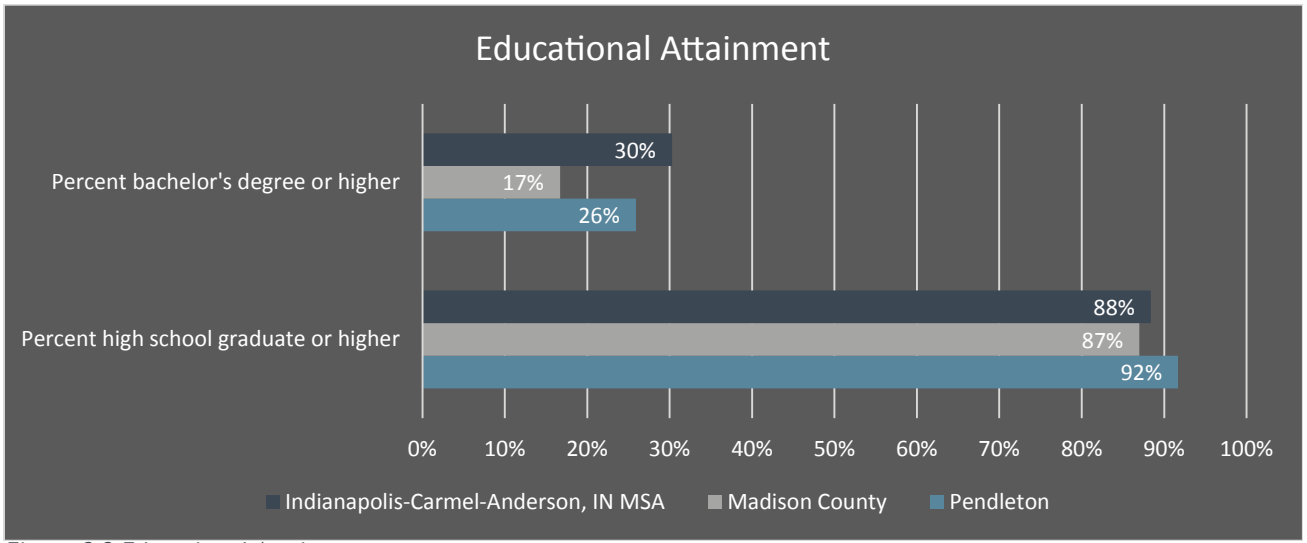

Figure 2.2 Educational Attainment

91.7% of Pendleton residents are high school graduates or have higher educational attainment. Nearly 26% of the population has obtained a bachelor's degree or higher. Pendleton has a slightly higher percentage of those with a high school diploma or higher when compared to Madison County and the Indianapolis-Carmel-Anderson MSA. Though when comparing the percentage with bachelor's degrees or higher, Pendleton finds itself with a higher percentage than Madison County, but less than the Indianapolis-Carmel-Anderson MSA (Figure 2.2).

99% of Pendleton residents work within the State of Indiana, 48% work within Madison County and 51% of the residents work outside of the County, while 1% work outside of the state. Pendleton falls right in line with the comparisons when having those work in and out of the state, but in terms of working within/ out of county of residence, Pendleton has a majority of its available workforce leaving town for their jobs (Figures 2.3-2.5).

The Median Household Income is $51,481 according to the 2009-2013 ACS. When comparing the income, Pendleton has a higher median income than Madison County,

but slightly lower than the Indianapolis-Carmel-Anderson MSA. 10.3% of the Pendleton residents live below the poverty level., which is lower than the Indianapolis-Carmel-Anderson MSA rate of 14.4%, and the Madison County rate which is 17.3%. 65% of Pendleton Residents live in owner-occupied homes with the remaining 35% of resident live in renter-occupied homes. The housing tenure relation is right in line with the two comparison areas.

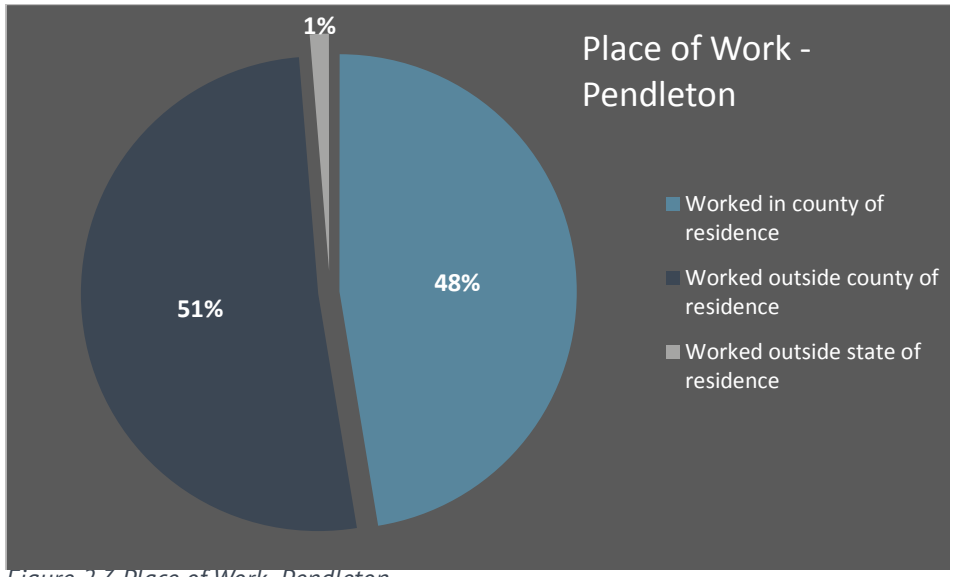

Figure 2.3 Place of Work- Pendleton

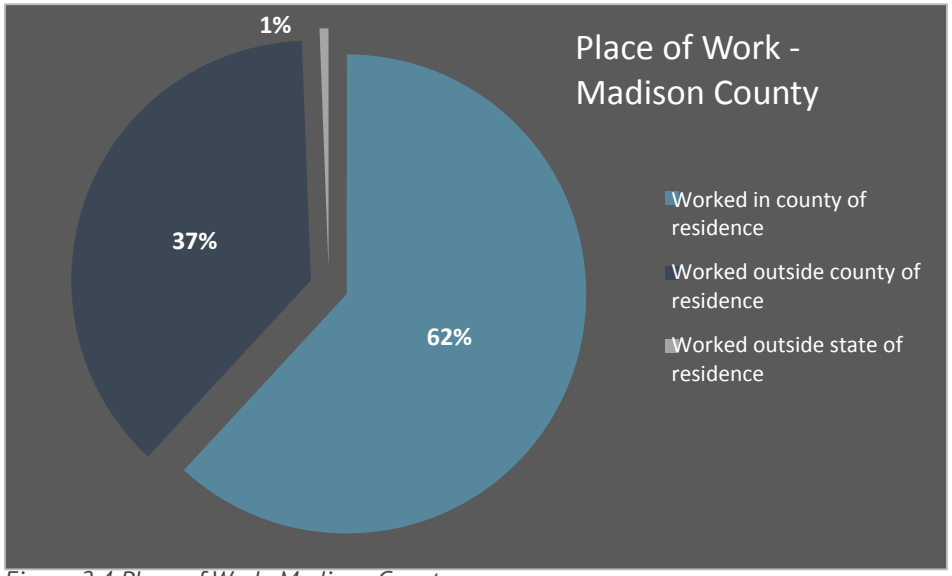

Figure 2.4 Place of Work- Madison County

ZONING

Pendleton is a small town comprised mostly of residential properties and surrounded by agricultural land. In order to retain the small town

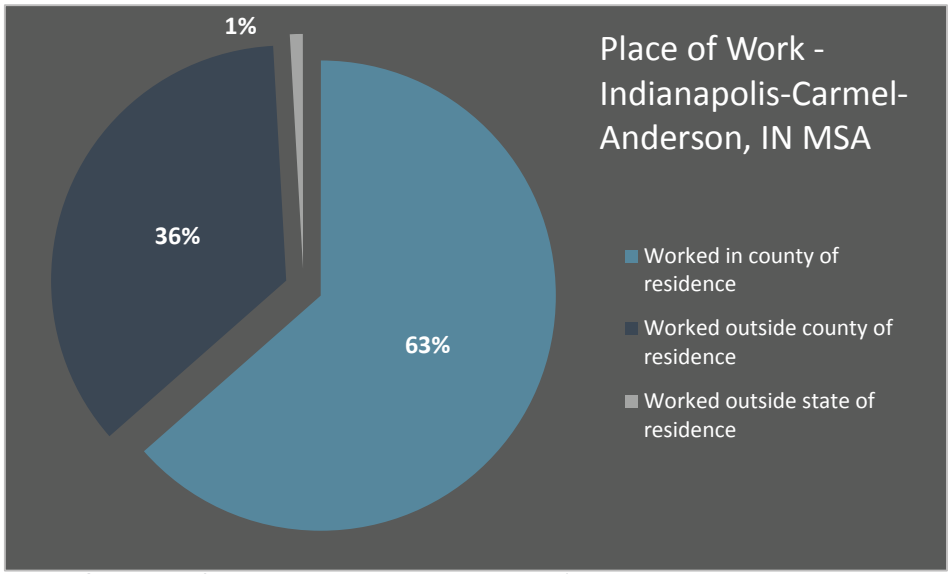

Figure 2.5 Place of Work Indianapolis Metropolitan Area

status that has historically been part of the Pendleton charm, the Town aims to control business location and growth. Pendleton utilizes traditional zoning to ensure compatible development as it continues to grow. The largest three zones by acreage along State Street are agricultural, residential, and planned business; 31.2, 24.8, and 17.7 percent respectively. The institutional zone also has approximately 9.8 percent of the corridor and 8.8 percent of the total area is already being used for infrastructure purposes. The smallest three zones are multi-family, two-family, and downtown business, each with less than 1 percent of the corridor. Within the existing Town boundary, the State Street Corridor encompasses only 13.1 percent of the total acreage or 1,606.28 of 12,289.02 acres. Despite encompassing such a small portion of Pendleton, State Street nevertheless plays a significant role in the development of the town as a hub for economic activity (Figure 2.6).

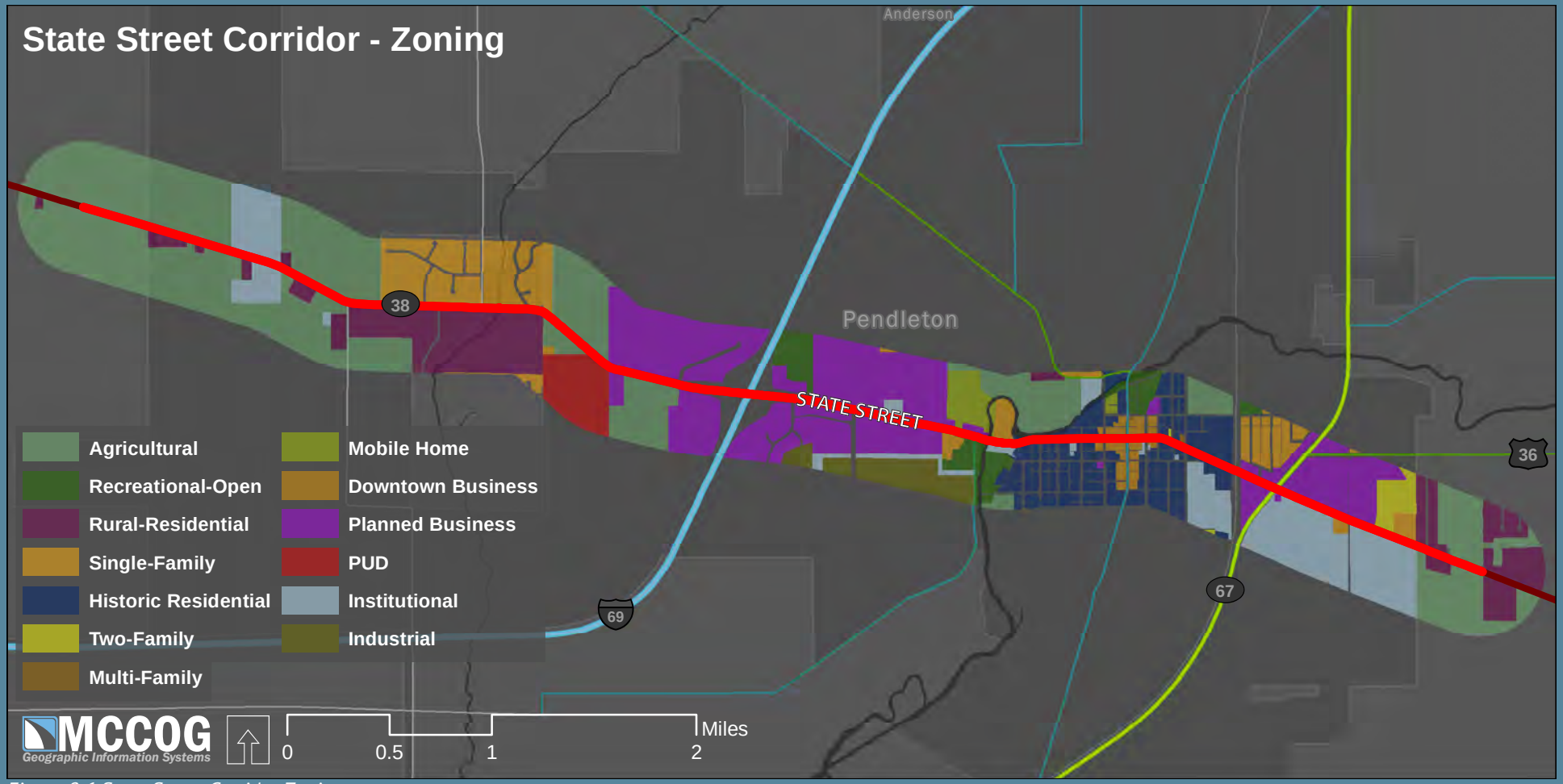

Figure 2.6 State Street Corridor Zoning

BUSINESS INFORMATION

To gain a comprehensive understanding of Pendleton's local economy, including future growth, an inclusive analysis looks beyond the current town boundaries. Therefore, this analysis compares the State Street Corridor to the area within the existing Pendleton Town Boundary, as well as, the area within a quarter-mile of the existing town boundary.

A significant portion of the businesses and employees in Pendleton are located within the State Street Corridor; 50.2 percent of businesses and 51.7 percent of employees within a quarter-mile of Pendleton are within the State Street Corridor. A majority of the businesses and employees along the corridor are in the downtown or along SR 67 as illustrated in Figure 2.7. The distribution of businesses by sector and employees by sector for State Street, as identified by the 2-digit North American Industry Classification System (NAICS) code, follow a similar pattern to Pendleton and the area within a quarter-mile of the Pendleton town boundary. The top three employment sectors for State Street are: Educational Services, Manufacturing, and Accommodation and Food Services (see Appendix B for a full breakdown).

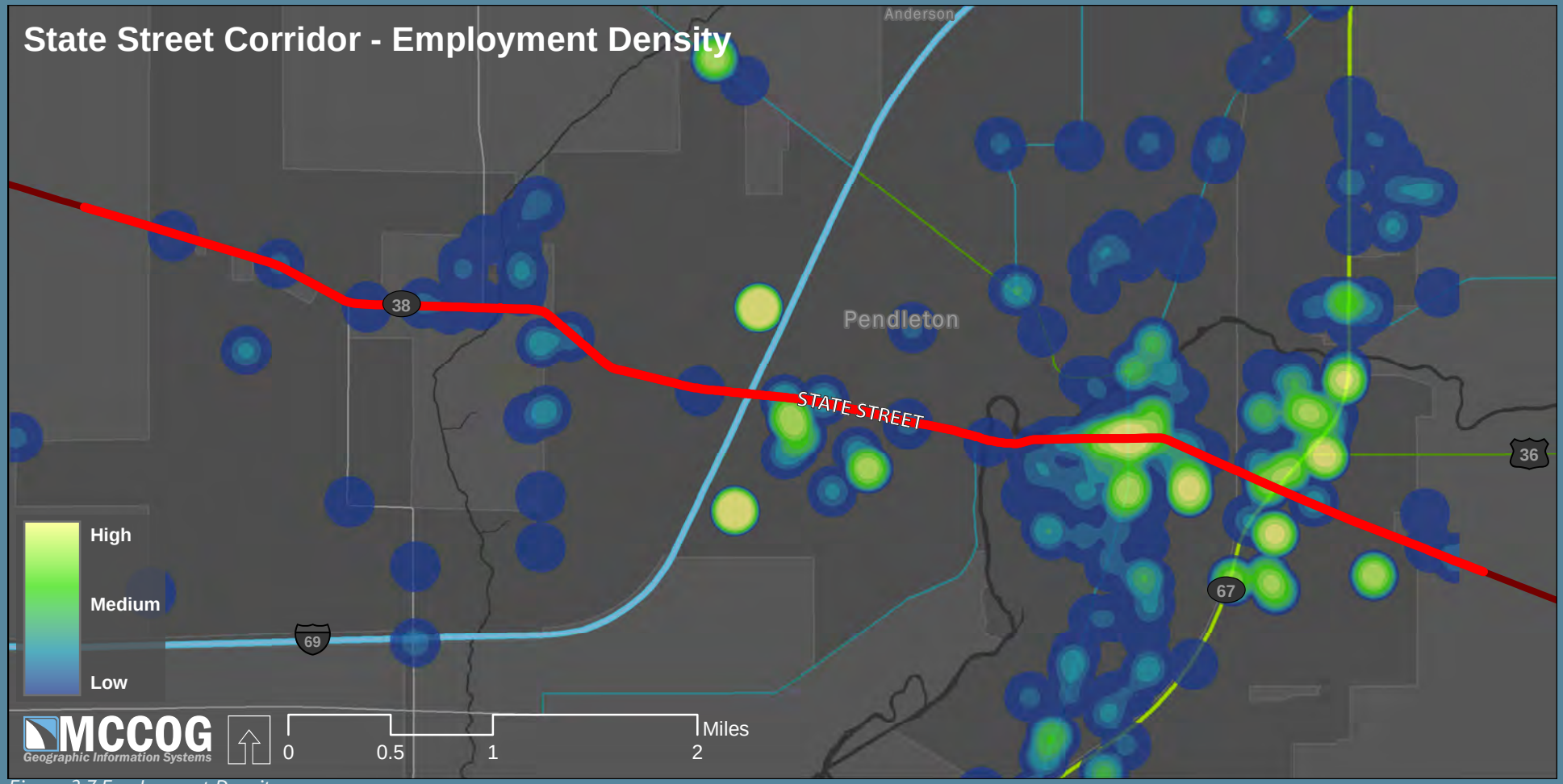

Figure 2.7 Employment Density

BUILDING INVENTORY

There is approximately 3,250,024 square feet of building space within a quarter-mile of the Pendleton corporate limits. The building space along State Street accounts for approximately 31.4 percent, 1,019,949 square feet.

- State Street – 1,019,949 square feet (36.4 percent; 31.4 percent)
- Pendleton – 2,803,467 square feet
- Quarter-mile around Pendleton – 3,250,024 square feet

RETAIL MARKET ANALYSIS

The retail market gap analysis identifies the gap between estimated sales at the consumer level and estimated consumer spending at retail establishments. Industries have varying degrees of demand depending on the trade area socio-demographics and can either have retail leakage or surplus. Retail leakage occurs when the population is required to leave the trade area to fulfill a portion of the demand and surplus occurs when the demand within the study area is lower than the supply. A surplus supply represents a market where customers are

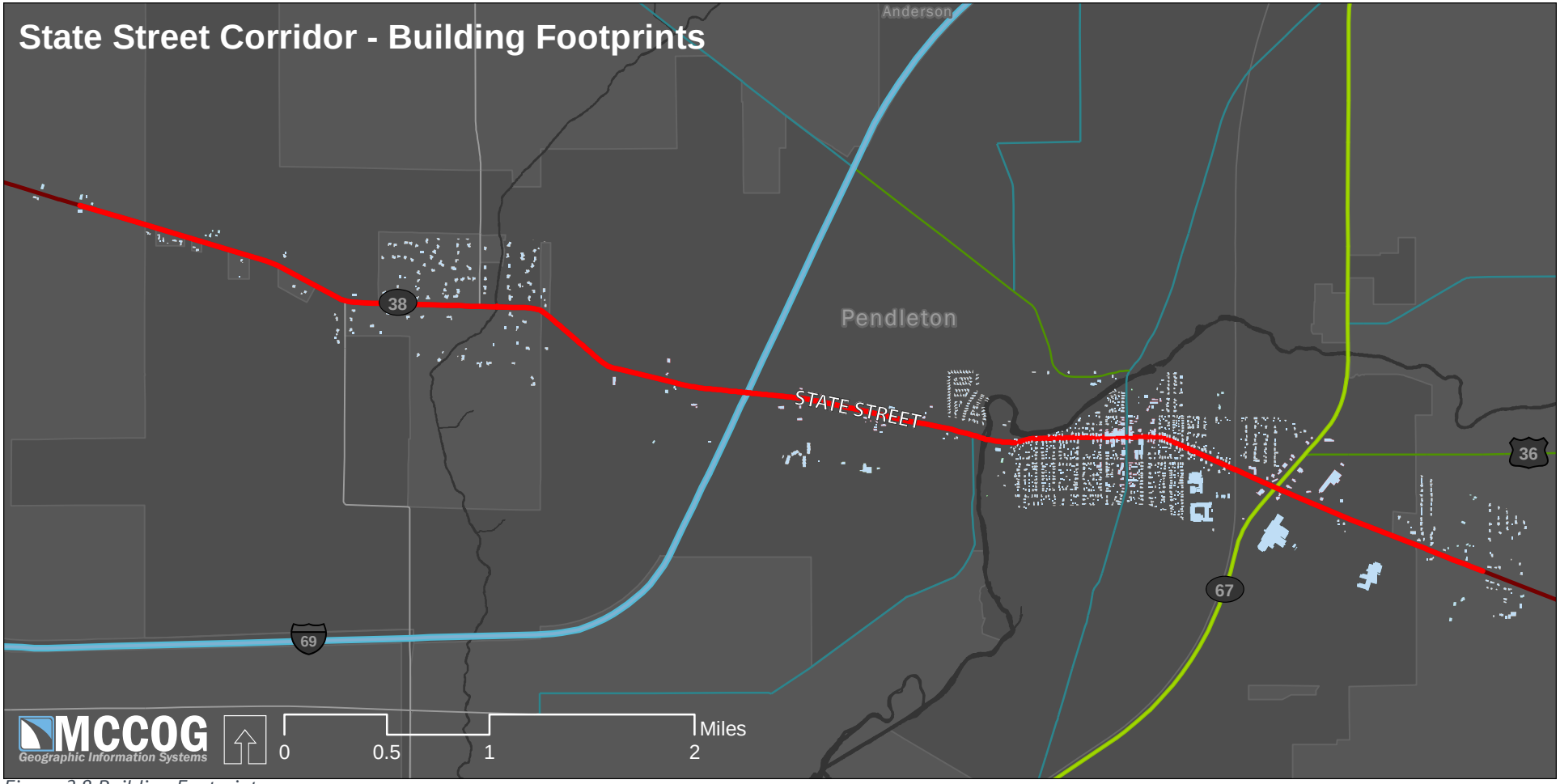

Figure 2.8 Building Footprints

attracted from outside the trade area. Industries with retail leakage may indicate potential for new markets to be opened within the trade area.

The State Street Corridor has a retail trade gap of nearly $7.8 million, representing a 20 percent leakage, while the food and drink industry only has a gap of $176,000 or 3.4 percent leakage. This nearly $8 million leakage represents only 23.7 percent of the total retail leakage, $33.5 million, within a quarter mile of the Pendleton town boundary. The retail market analysis reviews the retail gap of thirteen industry groups within the retail trade and food and drink industries to further dissect the retail opportunities.

There are three industry groups that are already producing a surplus: gasoline stations (-8.1 leakage/surplus factor); building materials, garden equipment, and supply stores (-22.7); and food and beverage stores (-32.6). Additionally, the food services and drinking places industry is nearly balanced between potential and sales. The largest leakage factor is general merchandise stores with a leakage/surplus factor of 87 and an identified retail gap near $4.5 million. Electronics and appliance stores; non-store retailers; and clothing and clothing accessories stores also have a leakage/surplus factor above 50,

indicating a high retail potential. Motor vehicle and parts dealers; health and personal care stores; and clothing and clothing accessories stores have the largest retail gap respectively, following general merchandise stores; each of these four industries have a retail gap above $1 million and the lowest leakage/surplus factor is the health and personal care store industry at 41.8. The larger trade area, one-quarter mile beyond the Pendleton town boundary, follows a similar pattern for industry group retail gaps with increasing retail potential for each industry group (Esri, Dun and Bradstreet).

HISTORIC SITES AND AREAS

Due to the large concentration of historic properties in the downtown, following a context sensitive solution (CSS) approach will be important during the Corridor Planning process. As defined by American Association of State Highway and Transportation Officials (AASHTO) and Federal Highway Administration (FHWA) during a joint strategic planning process, Context sensitive solutions is a collaborative, interdisciplinary approach that involves all stakeholders in providing a transportation facility that fits its setting. It is an approach that leads to preserving and enhancing scenic, aesthetic, historic, community, and environmental resources, while improving or maintaining safety, mobility, and infrastructure conditions.

There are three historic resources listed on the National Register of Historic Places within the Town of Pendleton. Two of the three are along State Street: the Pendleton Historic District and the Fall Creek Meeting House. The Fall Creek Meeting house is approximately 1.15 miles east of the corridor boundary, but is an important resource to note during the corridor study, as changes within Pendleton can impact the area along State Street beyond the corridor boundary. The Pendleton Historic District includes all of the downtown area, as well as much of the adjacent residential areas. Along State Street, the Historic District begins at the alley between Mill Road and Adams Street and continues until the Conrail Line approximately 0.25 miles east of East Street. The Historic District includes 423 contributing buildings, sites, structures, and objects and only 121 non-contributing. There are thirteen properties outside of the Pendleton Historic District that are both within the State Street Corridor and identified in the Indiana Historic Sites and Structures Inventory conducted for Madison County in 1984 (Figure 2.9). Although these properties are not listed on the National Register of Historic Places, they are important historic resources.

TRAFFIC VOLUMES

The State Street corridor is the 3rd most traveled corridor within the Town of Pendleton. The Interstate 69 corridor and the State Road 67 being the highest and 2nd highest corridors respectively. State Street provides an important arterial connection between these two corridors, collecting vehicles and traffic from major productions, and funneling that traffic to major regional connections.

There are 4 major roadways that intersect State Street:

1. Interstate 69
2. State Road 67
3. Pendleton Avenue
4. Main Street

As of 2015, there were 60,446 vehicles per day on Interstate State 69, south of the Exit 219 interchange. Since 2012, the traffic on the interstate has grown slowly, representing an increase from 60,336 vehicles per day in 2012. In 2011, traffic along the interstate was significantly lower, at 52,831 vehicles per day. Interstate 69 is not only increasingly becoming an important as a major regional connection into Indianapolis, but also an important international trade route connecting Brownsville, TX with Canada via Port Huron, MI.

The State Road 67 corridor is a concurrent section of highway that runs from Anderson, IN to Indianapolis, IN. It is placarded with several different highway signs, and in some sections shares the route with State Road 9, State Road 38, and United States Route 36. The corridor is a major regional alternative to Interstate 69 and Interstate 70, funneling traffic into Indianapolis via the I-465 beltway. The highest traffic volume of 18,356 vehicles per day were observed between the

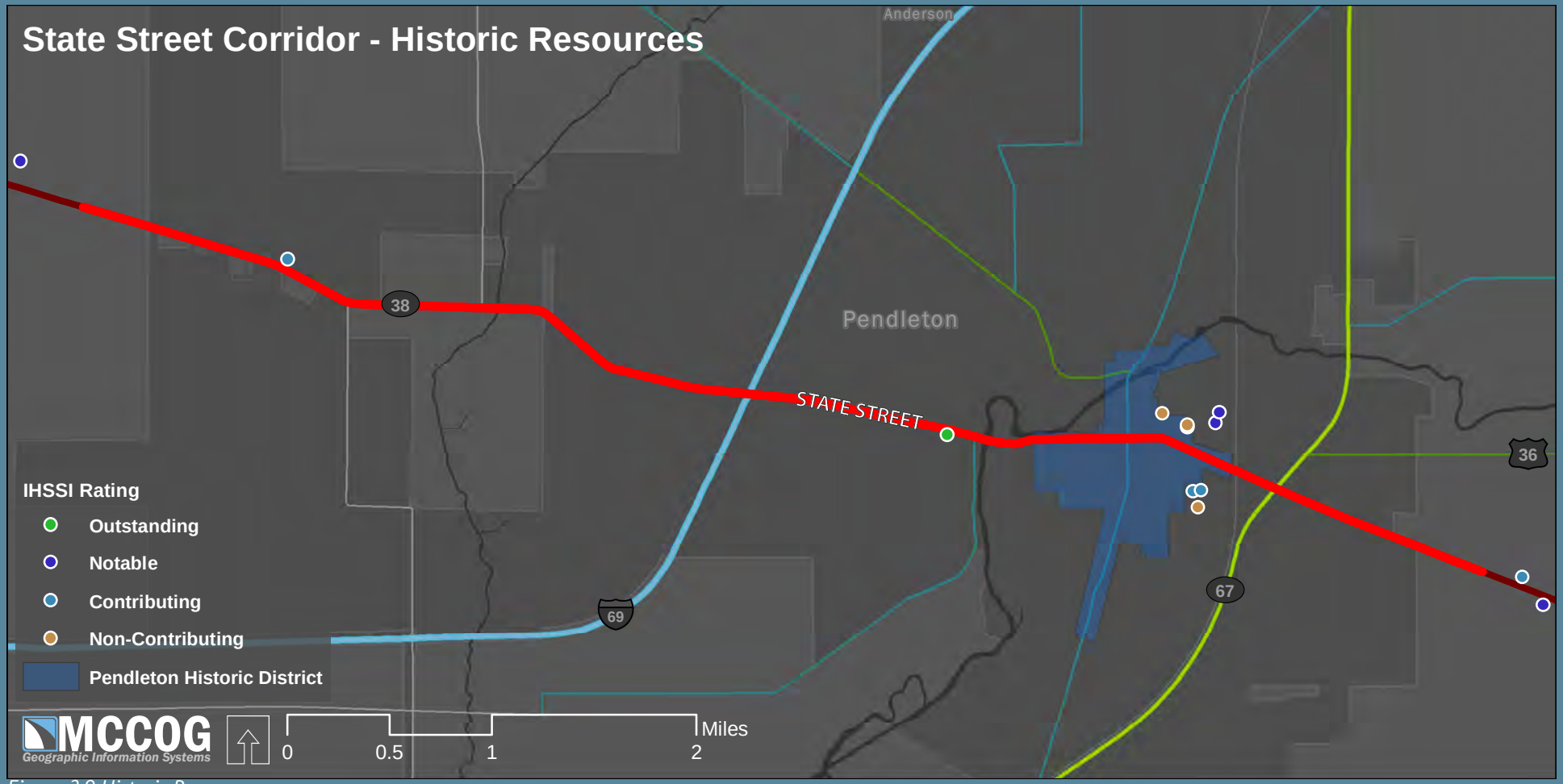

Figure 2.9 Historic Resources

intersection of State Street/ State Road 38 and United States Route 36. South of the intersection traffic volumes declined to 14,156 vehicles per day. In general, traffic along this corridor continues to decline through Fortville, IN where they gradually increase to 51,694 vehicles in Lawrence, IN.

Pendleton Avenue is a major collector that divides the historic district, the primary intersection with State Street is in Downtown Pendleton. The highest volume of traffic is recorded just north of State Street at 3,596 vehicles per day.

State Street's highest volumes are recorded between Interstate 69 and State Road 67. The annual average daily traffic in Focus Area 1 is 5,278 vehicles per day. Focus Area 2 has a volume of 10,260 vehicles per day, increasing to 11,234 vehicles per day in Focus Area 3 (Downtown Pendleton). East of State Road 67, State Street's volume decreases to 9,204 vehicles per day. The sections of State Street in Focus Area 2, 3, and 4 represent the highest volumes of traffic along the corridor.

In addition to traffic volumes along the roadway, intersection turning movement counts were collected for the AM and PM peak hour periods along the corridor. AM Peak hour conditions start at 7:00 AM and end

at 8:00 AM. PM Peak hour conditions start at 5:00 PM and end at 6:00 PM. Turning movements are important in urbanized areas because the intersection determines the capacity of the roadway. Additionally, as left-turn and right-turn movements begin to increase, the efficiency and total capacity of the roadway will begin to decrease. A complete record of all turning movements collected on State Street can be found in Figures 2.10 through 2.14, located on the following pages. In general, the highest observed turning movements were found at:

1. Interstate 69
2. State Road 67
3. Enterprise Drive
4. Pendleton Avenue

Figure 2.10 Intersection Turning Movement Volumes

Figure 2.11 Intersection Turning Movement Volumes

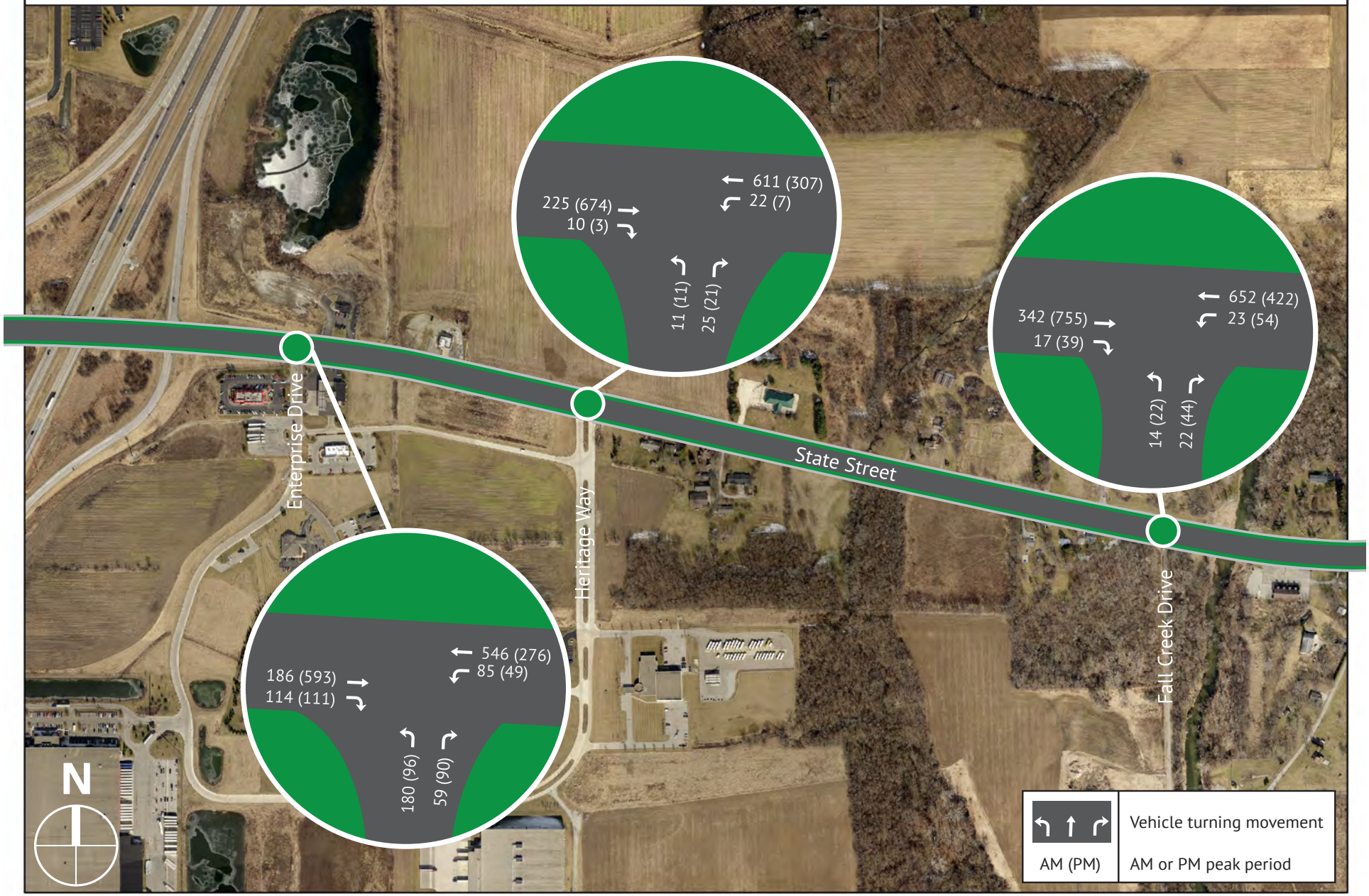

Figure 2.12 Intersection Turning Movement Volumes

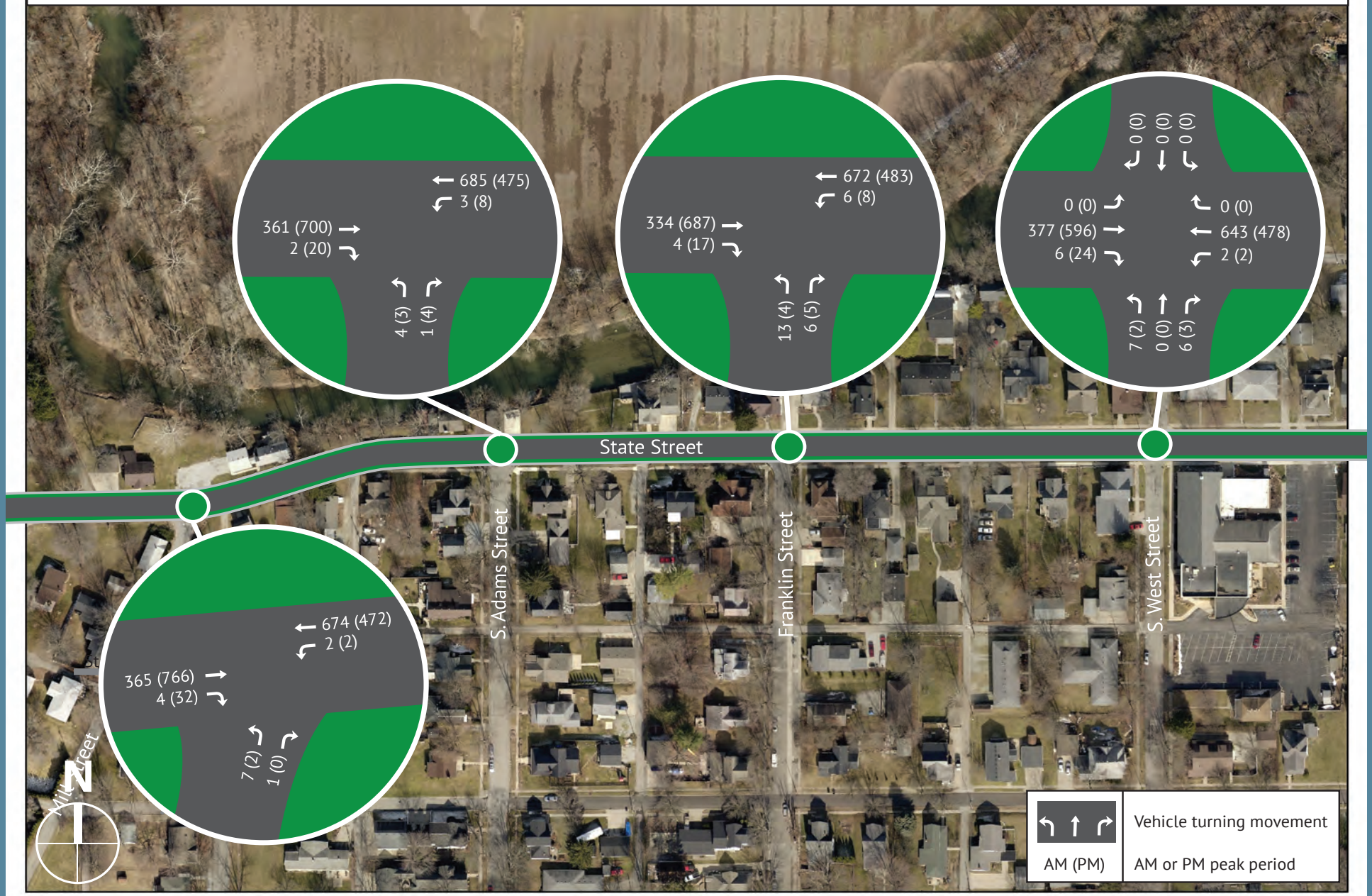

Figure 2.13 Intersection Turning Movement Volumes

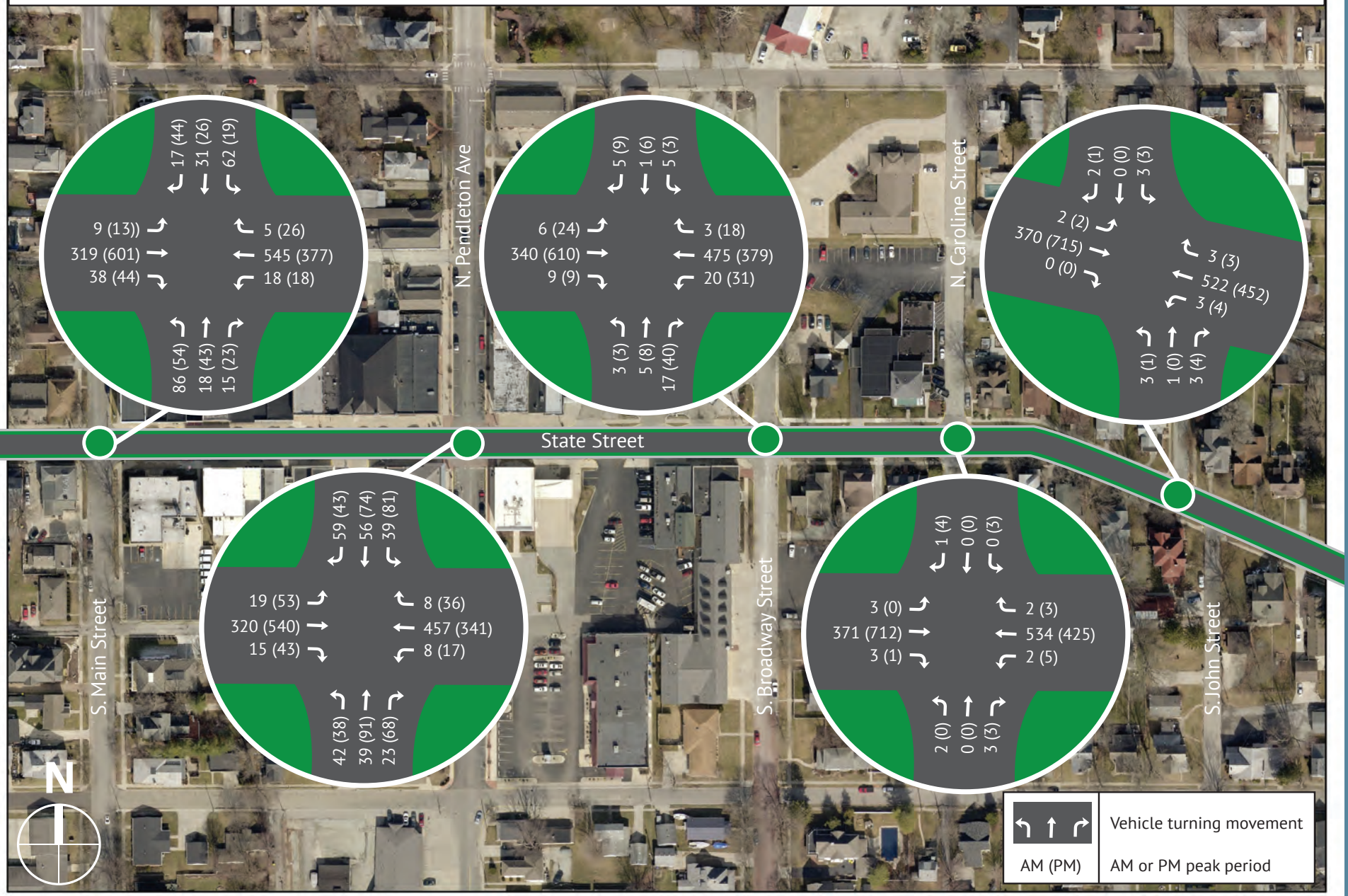

Figure 2.14 Intersection Turning Movement Volumes

TRANSPORTATION SAFETY

A safe transportation system is essential to public health and wellness. To address a comprehensive strategy for transportation planning, the safety of the entire Pendleton, IN transportation system was performed to identify high crash locations, and provide estimates of the total societal cost of crashes in Pendleton.

Crash analysis is performed by separating the crashes that occur by intersections and roadway segments and by control group (i.e. stop controlled and signalized intersections). For each of these, an observed crash rate and critical crash rate are calculated and compared to each other to determine if crashes are occurring beyond random chance. If the observed crash rate is higher than the critical crash rate, the intersection is flagged for analysis. The critical crash rate accounts for variation between functional and operational characteristics of the roadway by taking into consideration the weighted average crash rate for all control group roadway types (i.e. signalized intersections) within the entire Town of Pendleton within at least 95% statistical confidence.

Per state of the practice, 5-years of crash data were analyzed from January 1, 2009 to December 31, 2014. In that period, there were 561 total crashes in the study area. 3 of those crashes were fatalities, 96 were injury crashes (i.e. incapacitating injury, non-incapacitating injury, and possible injury), 459 property damage crashes, and 3 crashes that were not classified by police officers.

Of the total crashes, 195 of those crashes were right-angle or head-on collisions. These crashes represent the highest likelihood of injury, and account for over a third of all collision types in Pendleton. Rear-end collisions represent the highest proportion of collisions, recording 245 crashes in the study period.

Crash cost refers to the economic value of damages and losses caused by a vehicle crash. The economic costs of crashes are referred to as the human capital costs have direct and indirect costs. Direct costs attributed to human capital costs include medical costs, emergency service costs, travel costs, occupational costs, insurance costs, legal representation costs, travel delay costs, and subsequent delivery cost increases. Indirect costs can be attributed to non-medical costs, such as the production losses from an absent worker(s), costs paid by relatives, or other economic markets. The analysis utilizes comprehensive costs, which take into account human capital crash costs, but also the value of resources that society dedicates to reducing the risk of loss of life, physical and emotional suffering, diminished quality of life, and permanent physical or cosmetic damage. There are two types of crash costs, those by injury-class, (i.e. incapacitating injury) and those by colliison type (i.e. right-angle collision).

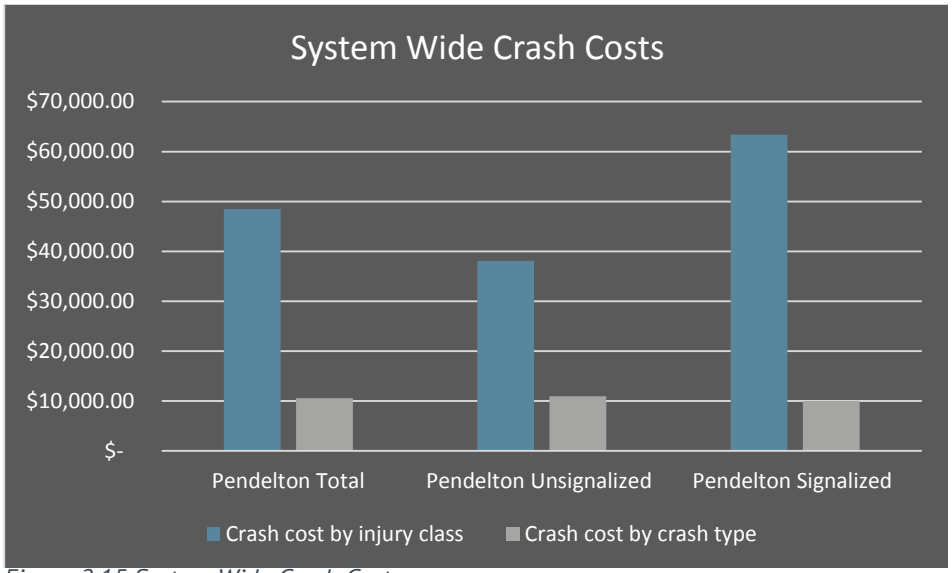

Figure 2.15 System Wide Crash Costs

In the last 5 years, Pendleton has had $27,220,045.01 in total crash costs. Stop controlled intersections accounted for $12,575,303.93 in crash costs, signalized intersections have accounted for $14,644,741.07. The average cost per crash in Pendleton has comprehensive cost of $48,520.58.

There were 5 intersections that where flagged during the crash analysis. The intersections at Exit 219 and CR 300 and State Street (SR38), were not included in analysis because a roadway treatment

had been implemented within the analysis year. Water Street and Pendleton Avenue were not analyzed because it did not fall within the corridor. The intersections of State Street with Enterprise Drive and State Road 67 both reported observed crash rates that exceeded the critical crash rate for their respective control groups (Figure 2.17). State Street's intersection with Enterprise Drive reported 26 collisions, with an average crash cost of $24,482.21 for a total cost of $636,563.57 during the study period. This represents an increase from the Falls Pointe Traffic Study conducted in 2013, which found that average cost per collision to be $14,286.95. State Street's intersection with State Road 67 reported 88 collisions, with an average crash cost of $74,325.08, for a total cost of $6,654,606.68 (Figure 2.16).

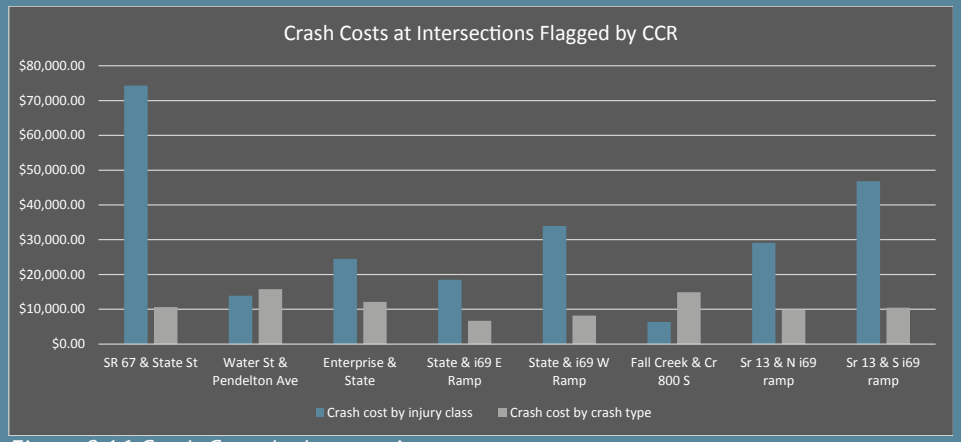

Figure 2.16 Crash Costs by Intersection

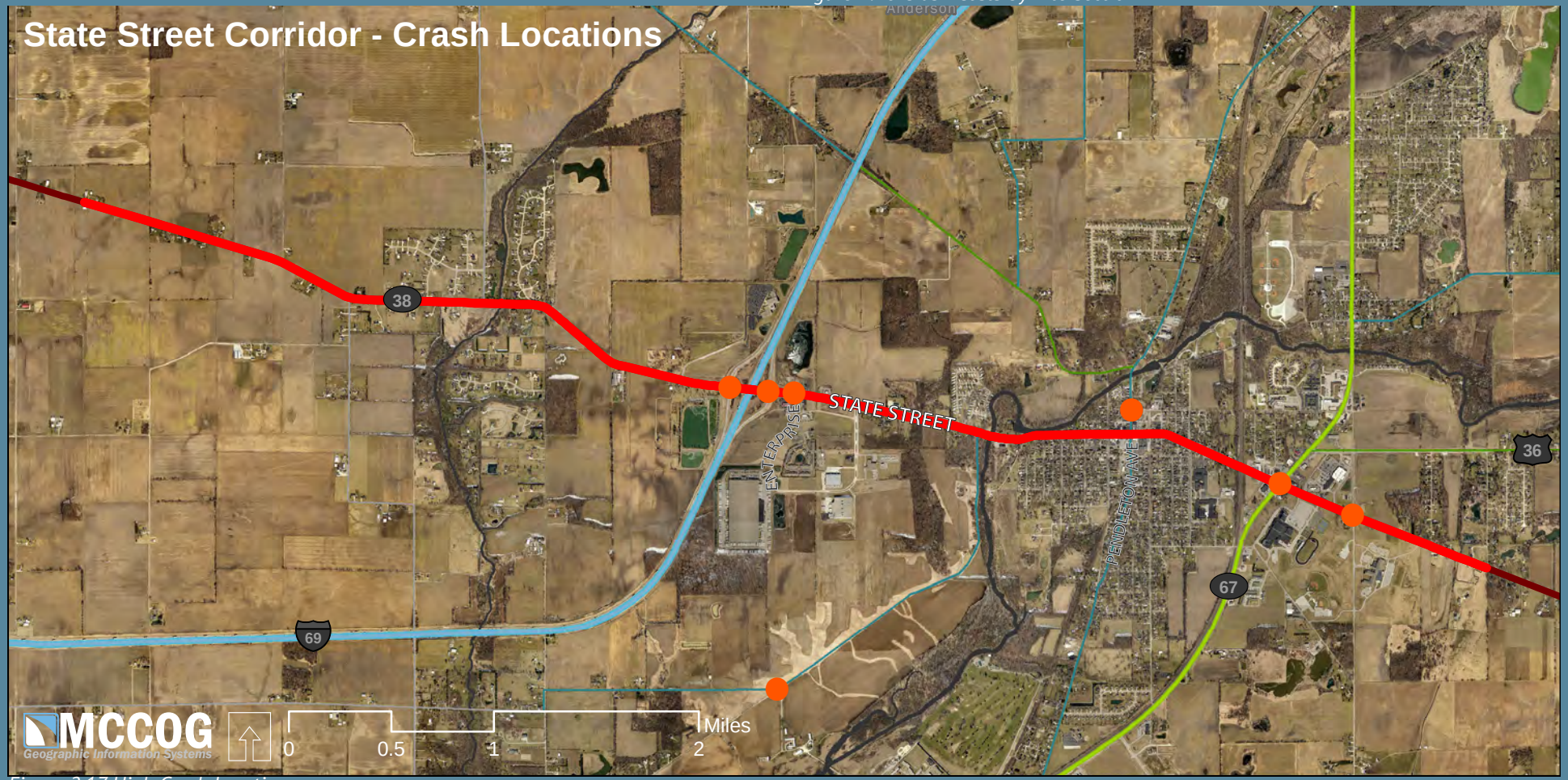

Figure 2.17 High Crash Locations

RAILROAD

CSX Transportation is the only primary operating railroad within Pendleton and it links Anderson to Indianapolis along SR 67. CSX Transportation operated as both a freight and passenger rail until 1997, when passenger transportation was halted. However, there was a steady increase in both freight and passenger train miles between 1990 and 1996—freight miles increased from 70 to 83 million and passenger miles increased from 46 to 72 million. The number of passengers transported increased during the same time period from 1.7 to nearly 2 million. The total train miles on CSX Transportation fluctuated significantly between 1997 and 2014, increasing to as high as 114 million miles in 2000 and falling to under 88 million in 2009. The total train miles stabilized near 8 million per month in 2011 and have remained consistent through 2014, for an average of just under 99 million miles per year over the last four years (Figure 2.18).

Within Pendleton, CSX has nine railroad crossings, three grade-separated—including State Street—and six at-grade crossings. The railroad crosses over State Street to create the eastern boundary of downtown between East Street and Central Way. The bridge across State Street, constructed in 1910, is approximately 16.5 feet tall,

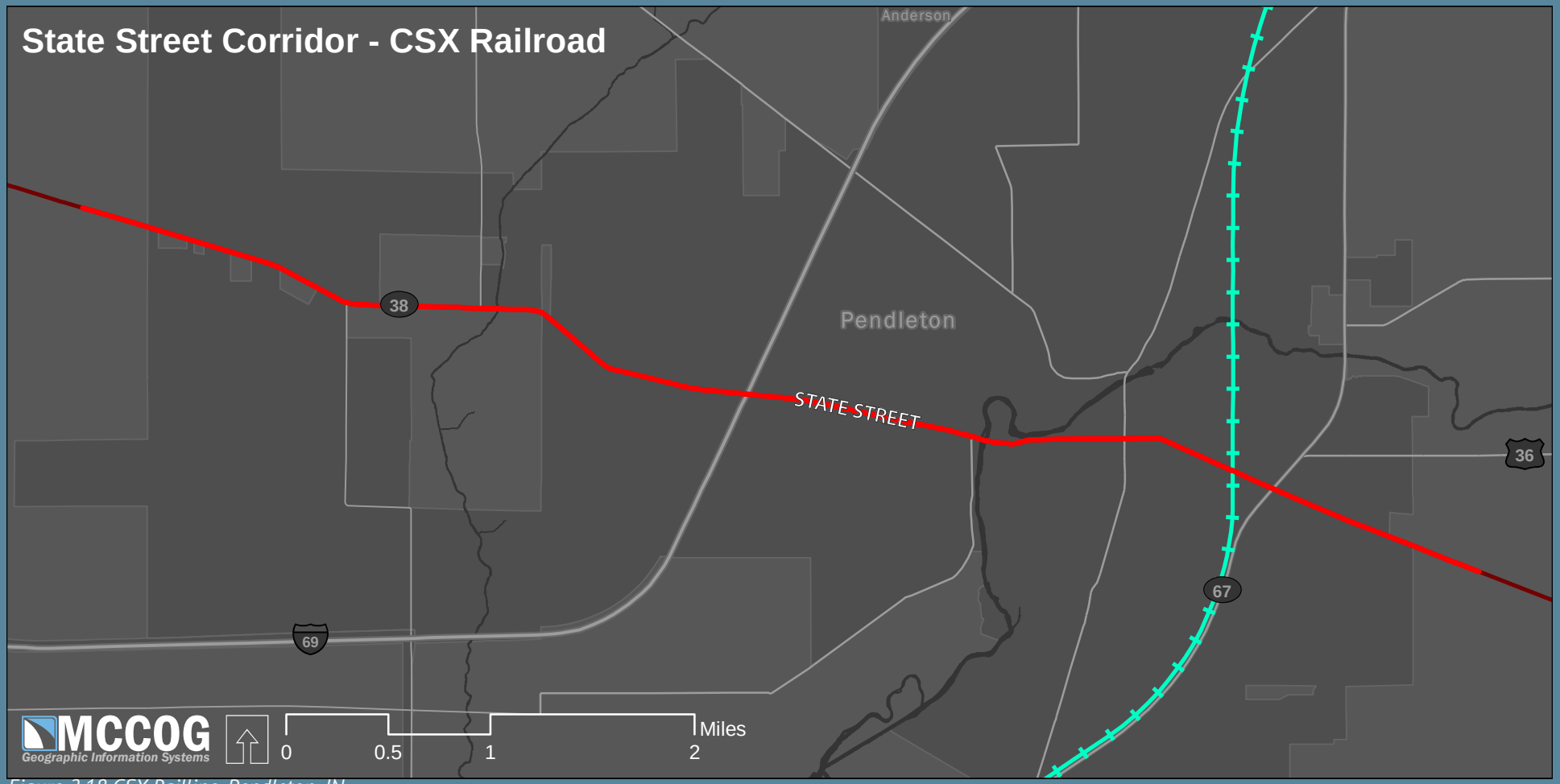

Figure 2.18 CSX Railline, Pendleton, IN

32 feet wide, and 46 feet long, accommodating two rail lanes. The crossing represents a possible choke point for both automobile and pedestrian traffic; there is no room to widen the 24 foot roadway and only the south side has an existing sidewalk, which is approximately 5 feet wide. Between 2000 and 2014, along the entire CSX corridor the number of train-related crashes decreased from 484 to 223; the number of train accidents per 1,000,000 train miles also decreased from 4.23 to 2.21. Seven of the nine crossings within Pendleton—including State Street—have had no train-related crashes within that time period. The only crash within Pendleton since 2000 occurred in 2011 at the Pendleton Avenue CSX at-grade crossing when a motorist drove around the crossing gates and was struck by the approaching train.

The maximum timetable speed of the CSX line is 60 MPH, with trains operating between 55 and 60 MPH on average through Pendleton. In addition to CSX, Norfolk Southern has track rights. As of 2014, thirteen day thru trains, twelve night thru trains, and two switching trains operate on the CSX line. The number of thru trains has increased and is projected to continue increasing as trains are re-routed from Chicago intermodal facilities. The intermodal facilities in and around Chicago are beginning to have significant congestion issues as they approach capacity. The availability of railroad facilities within Indiana can be utilized to relieve railroad congestion in Chicago and as a major corridor connecting with Indianapolis, Detroit, and Cleveland, CSX will likely see a significant portion of the increase.

The CSX railroad is also a link within the Strategic Rail Corridor Network or STRACNET, as identified by the US Department of Defense in conjunction with the US Department of Transportation. STRACNET consists of 38,800 miles of rail lines that provide service to 193 defense installations requiring rail service. As part of STRACNET, the CSX Transportation railroad undergoes additional encouragement for the upkeep and maintenance of railroad facilities along this corridor. The Military Traffic Management Command (MTMC) is an important coordinating agency in any railroad modification, construction, merger, bankruptcy, and abandonment that may impact STRACNET railroads and should be involved in projects that could impact the CSX line.

BICYCLE AND PEDESTRIAN

The Town of Pendleton has two on-road bicycle routes that are part of the Heartland Bikeways network connecting communities throughout Madison County—Turnpike Triangle and Fall Creek Trace (Figure 2.19).

Turnpike Triangle is a 15.23 mile loop that connects Pendleton to Lapel and Anderson along Old SR 132, CR 300 S, and Layton Road. Fall Creek Trace is a 31.17 mile loop connecting Pendleton, Ingalls, and Markleville. The portion that connects Pendleton southwest to Ingalls is also part of an incomplete route identified as the Interurban Trail that is planned to connect Pendleton to the City of Fishers. The Interurban Trail route was added as part of the Indiana State Trails, Greenways, and Bikeways Plan update in 2014 and represents a long-term goal to provide a recreational link to connect regionally.

The pedestrian network in Pendleton includes trail space within Falls Park and sidewalks. A majority of sidewalks are concentrated in downtown Pendleton. There is approximately 19.92 miles of completed sidewalk, with an additional 13.40 miles proposed. 56.22 percent of the existing sidewalks are within the State Street Corridor. Only 45 percent of the proposed sidewalk additions are within the State Street Corridor however, so State Street will constitute approximately 51.72 percent of the available sidewalk network once it is complete. The Falls Park trails add approximately 2.01 miles to the Pendleton pedestrian network as the only dedicated trail in Pendleton; none of the trail is within the State Street Corridor, but it provides a significant opportunity to connect with amenities north of town including Falls Park. Part of the addition of sidewalks to the Pendleton pedestrian network includes a Safe Routes to School infrastructure project to install sidewalks connecting the Pendleton Heights Middle and High School to Falls Park and surrounding residential areas. Safety improvements have been made on the southern crossing of SR 67 at the intersection of SR 67 and State Street to provide a safe crossing for students. However, there are no safe crossings connecting the north and south sides of State Street. Finally, there are no existing sidewalks connecting the downtown west toward I-69 (Figure 2.21).

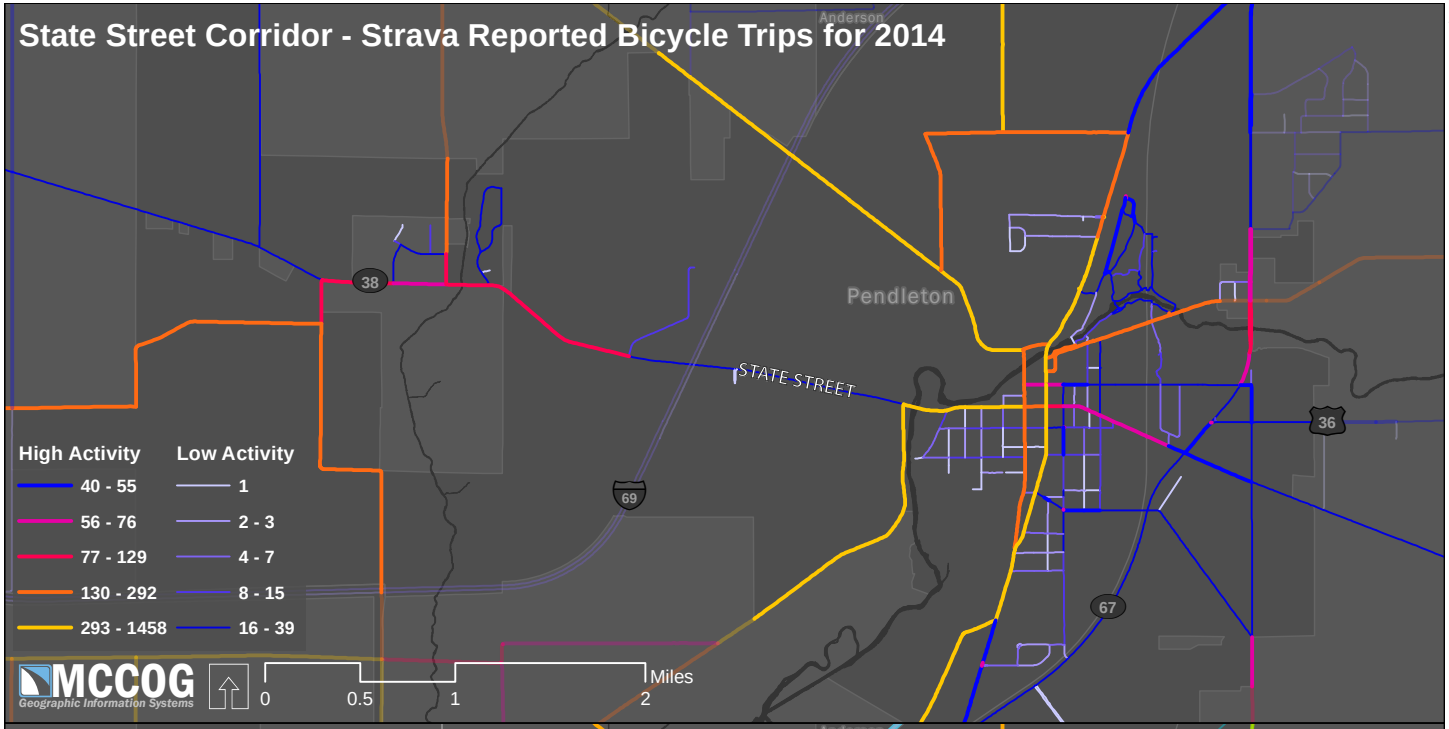

Figure 2.19 Bicyle Route Usage

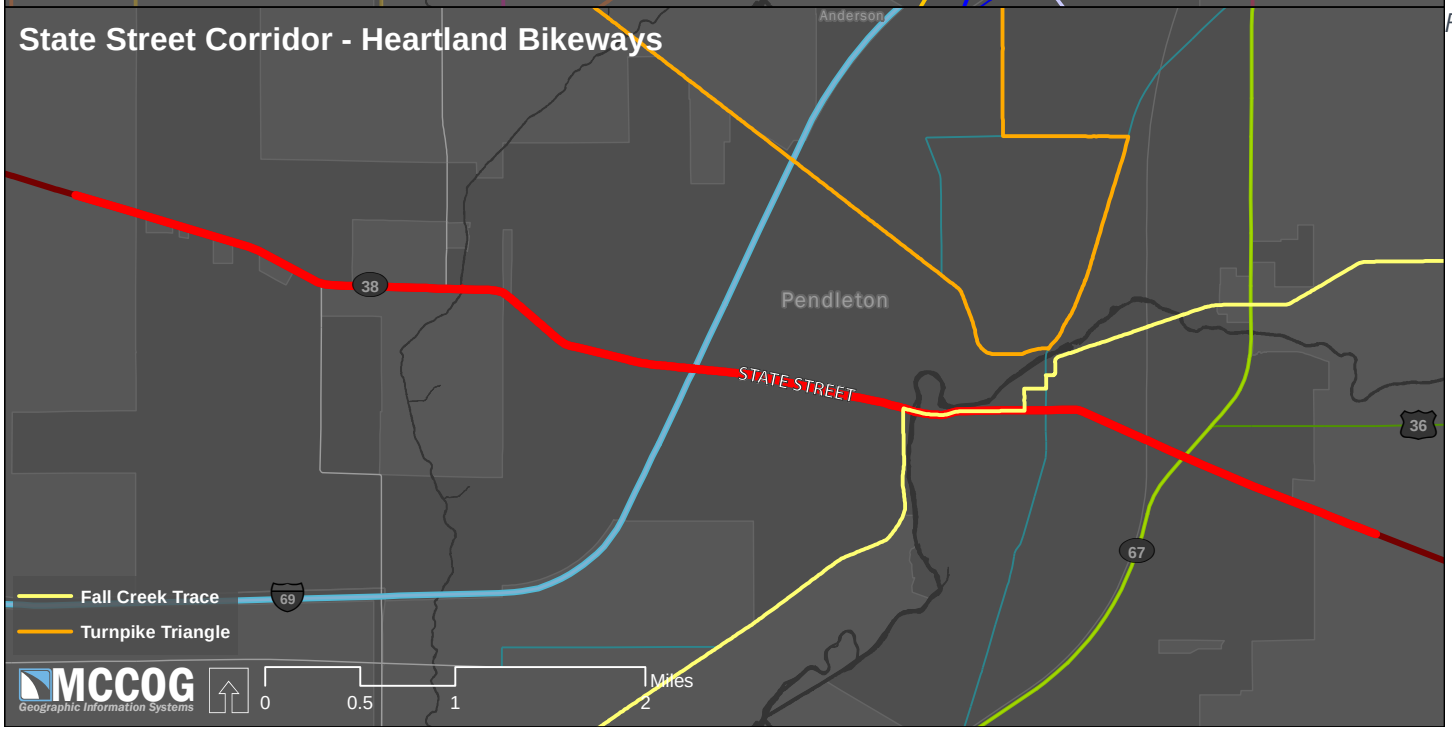

Figure 2.20 Heartland bikeways

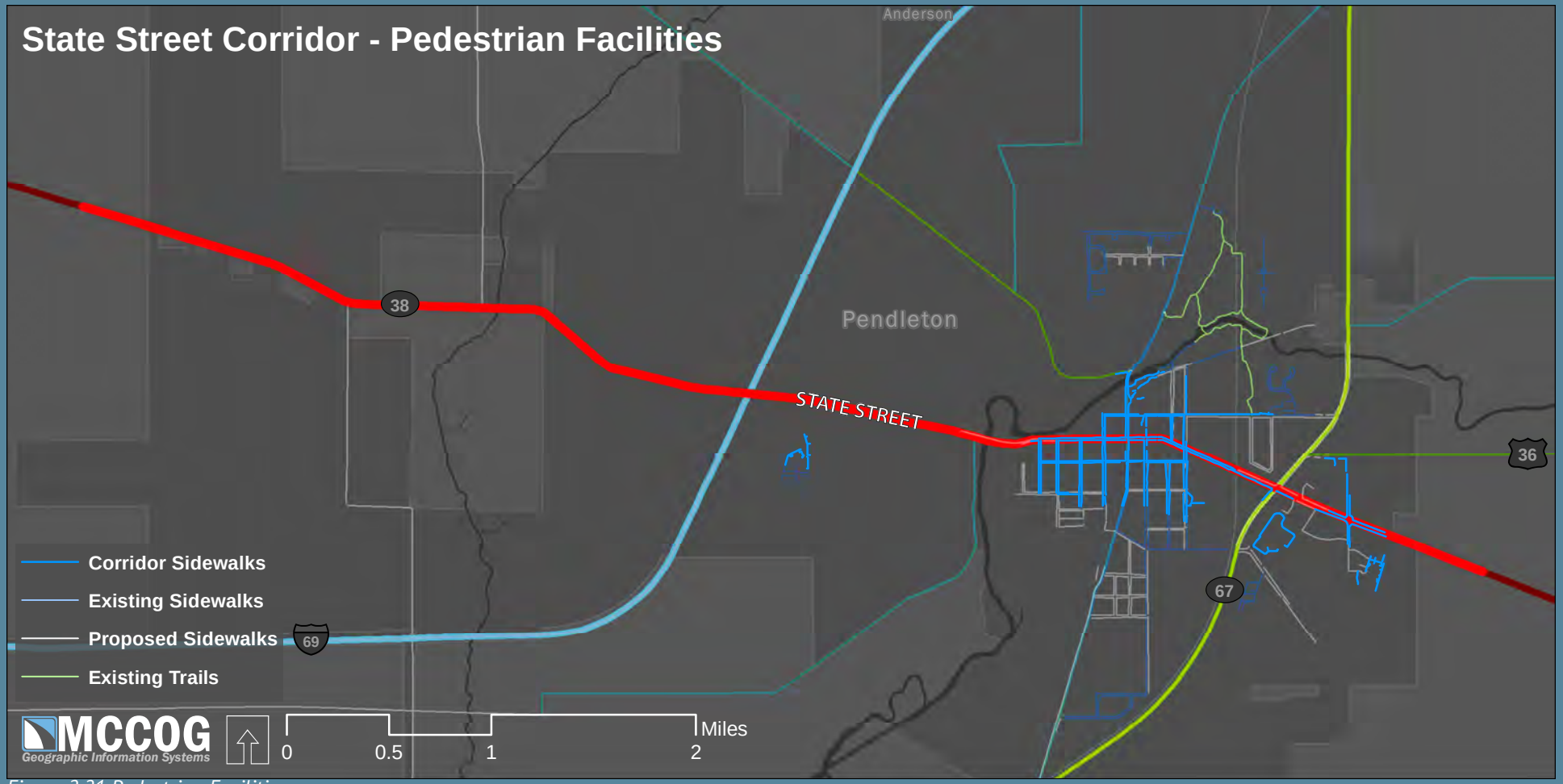

Figure 2.21 Pedestrian Facilities

SCHOOL BUS ACCESS

There are four schools within the State Street Corridor: Pendleton Elementary School (K-4), Pendleton Intermediate School (5-6), Pendleton Heights Middle School (7-8), and Pendleton Heights High School (9-12) (Figure 2.22). Pendleton Elementary had an enrollment of 927 students for the 2014-15 school year; a decrease since the enrollment of 1,137 for the 2010-11 school year. In the same time period, Pendleton Heights Middle School has seen an increase from 688 to 750 students and Pendleton Heights High School has increased from 1,235 to 1,409 students. Each of the schools has bus routes that utilize State Street during pick-up and drop-off times before and after school hours that add to the commuter traffic issues on State Street. As such, bus operations must be considered throughout the planning process as well.

The State Street Corridor, which includes portions of SR 38 on its most eastern and western edges, is characterized by the traditional neighborhood design of historic Pendleton. The residential streets intersecting with State Street have a relatively narrow cross section between 46 and 48 feet with two 4 foot sidewalks, 7 to 8 foot grass

strips, and 10 to 11 foot traffic lanes. Streets with on-street parking are between 56 and 60 feet wide. With the limitations of the built environment upon the State Street Corridor, the movement of traffic, especially vehicles of more significant size, may find navigation onto intersecting streets challenging. The portions of the corridor on the eastern and western fringe are the products of later developments and modern improvements and do not pose as much of a challenge. More specifically, although there are limitations to through truck traffic by local ordinance, the community must still embrace the necessity of local school busses in, adjacent, and through its urban residential core. In review of the AASHTO Green Book of design standards, conventional 36 to 40 foot buses (accommodating 65 to 84 passengers respectively) require a minimum turning radius of 39.4 feet, centerline turning radius of 35.4 feet, and a minimum inside radius of 25.4 feet. The downtown intersections between Mill Road and East Street may present issues for school bus access. Smaller buses should have less of an issue within the downtown due to decreased requirements for turning radii. Considerations should be made when identifying bus routes until intersections such as Adams Street, Main Street, and John Street are improved to meet modern design standards, if allowable under Historic District limitations.

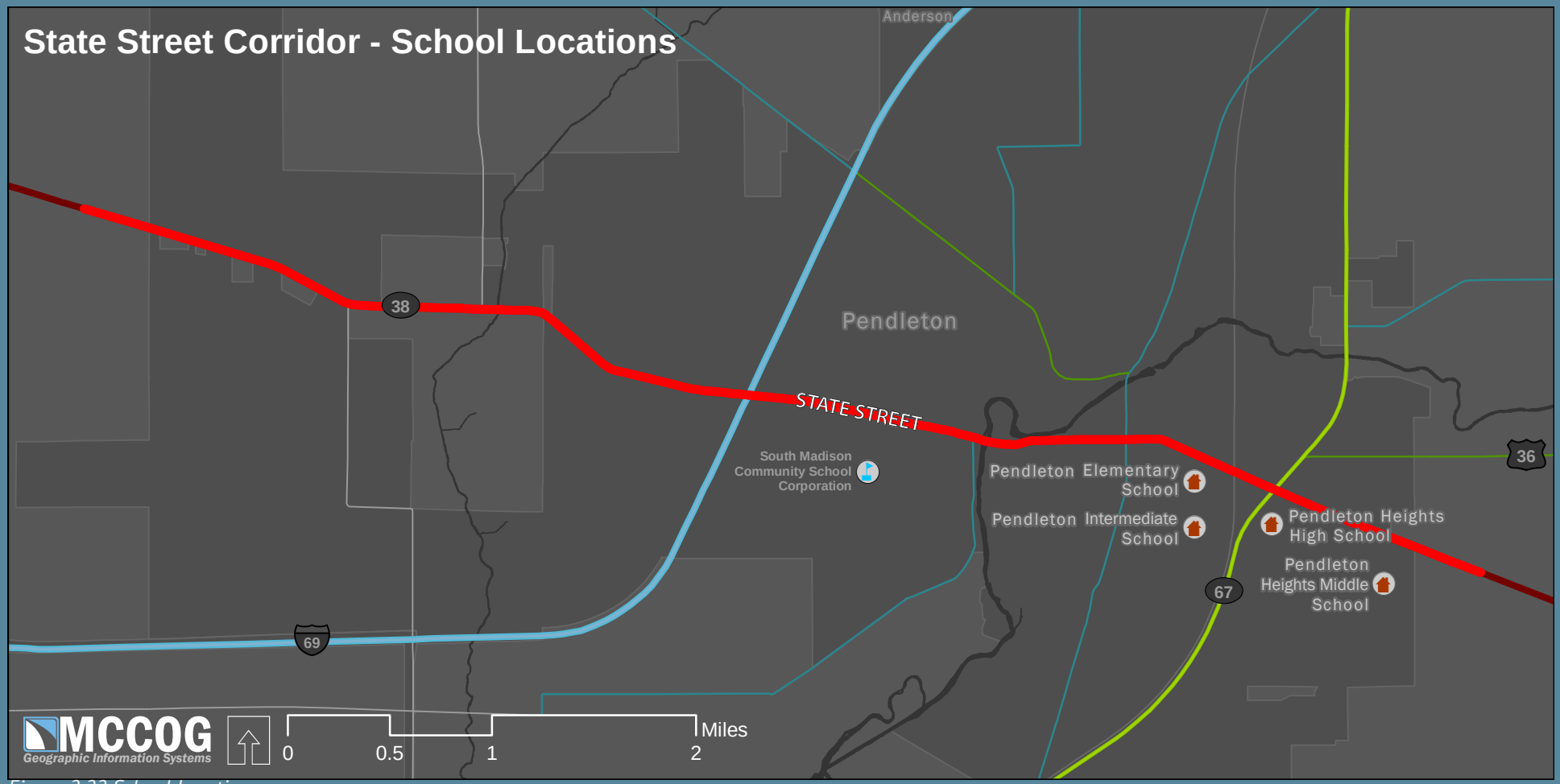

Figure 2.22 School Locations

PARKING

There are approximately 98 on-street and 4,906 off-street parking spaces, including 149 handicap spaces, within the State Street Corridor; not including driveways, garages, or unmarked, residential on-street parking. State Street itself has 36 of the 98 on-street parking spaces within the downtown. The only on-street, ADA-accessible parking space is along Pendleton Avenue. There are 93 parking lots with an average of 51 parking spaces, but as few as 3 and as many as 539. 11 of the parking lots are still gravel, totaling 208 spaces estimated based on a 10 foot by 20 foot parking space and 20 foot driving aisles as required. 5,004 parking spaces equate to 1 parking space per 200 square feet of building space within the State Street Corridor.

Focus Area 1 has the fewest parking spaces with only one gravel lot for approximately eight parking spaces, none designated for ADA-accessible parking. Focus Area 2 has 19 parking lots with 1,654 parking spaces, including 43 ADA-accessible parking space. Focus area 3 has 1,505 parking spaces between 53 parking lots and 98 on-street parking spaces. There are 45 ADA-accessible parking space designated within Focus Area 3 as well. Finally, Focus Area 4 has 20 parking lots with 1,837 parking spaces, including 61 handicap spaces (Figure 2.23).

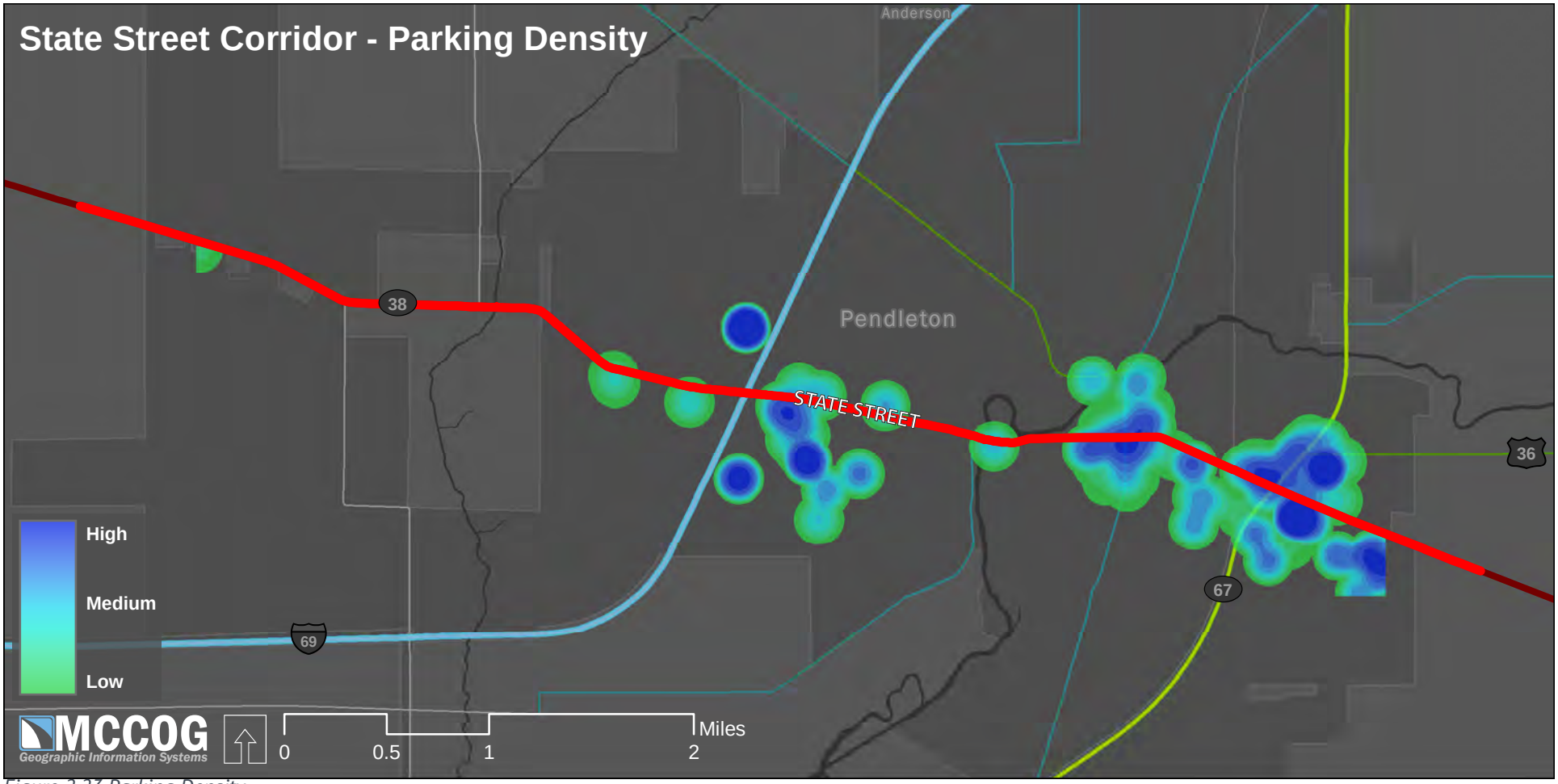

Figure 2.23 Parking Density

3 PUBLIC PARTICIPATION

In any planning process, it is important to seek out public opinion to examine the personal experiences and perceptions of a given community. It is vital for local residents to feel that they have an opportunity to provide input throughout the process so they embrace the solutions that address issues they have identified. The most successful planning processes offer multiple opportunities for the public-at-large to discuss their desires for the planned facility, whether that is the development of a downtown or the function of a major transportation corridor. Furthermore, all residents—regardless of age, income, past participation, current role in the community, etc.—should have an opportunity to participate in the planning process for a comprehensive understanding of community values.

The State Street Corridor Study provided public input opportunities at several stages of the process. The general public was engaged in community workshops and key stakeholder groups were directly addressed to identify issues, craft the vision, and guide the analysis of alternatives for reconfiguration of various aspects of the corridor. Engagement opportunities were conducted in order to gather valuable information from other segments of the general public, local businesses, and community leaders. These opportunities and the input received are described in more detail in the following paragraphs.

OPEN HOUSE & WORKSHOP

Two meetings were held at the Falls Park Conservation Building to engage the residents of Pendleton on issues facing the community with regards to the State Street Corridor. Responses from residents who attended these meetings provided significant insight to benefit the State Street Corridor Plan.

- October 30th - The meeting was conducted in an open house format and had an attendance of 19 community members along with several MPO staff members, town staff, and town officials. Key portions of the meeting included (1) identifying problem areas, (2) identifying areas of potential on a map, (3) completing personal route maps to outline daily travel, (4) identifying issues and shortcomings that currently exist along the corridor, and (5) identifying how the attendees utilize State Street.

- November 12th - The meeting was conducted in two parts and had attendance of 18 community members along with MPO staff , town staff, and town officials. The first part was a repeat of the open house format and activities from the October 30th meeting to provide an additional opportunity for the public to comment and participate in those five (5) activities, as described above. The second half of the meeting included an opportunity for voting on the public comment received from both meetings, which were divided into five (5) lists, one for overall issues and one for each of the four (4) focus areas.

Methodology - Upon signing in at the door, attendees were asked to stop by four (4) stations where they completed different exercises meant to gather input regarding various aspects of the State Street Corridor. These were conducted in a specific order and in small groups that were released to each station by MPO staff. The following is a description of these public input exercises and their corresponding number.

1. Route Maps – For this exercise, attendees received an aerial map of the Pendleton area and were asked to identify their trips to and from work. On the reverse side of the map, a series of questions were presented to help gain a better understanding of where and how people were travelling within Pendleton. These questions included: "If the route you take to work is different from the route you take home, please explain why?", "If you made a stop or several stops during your commute, where did you go?", and "Which mode of transportation did you take?"

2. How Do You Use State Street? – During this exercise, attendees were asked how they currently utilize the State Street Corridor.

3. What are the issues with State Street? – For this exercise, attendees were asked to share their personal issues with the

corridor, as well as any other concerns that they also might be aware.

4. I Wish State Street… - During this exercise, attendees viewed a large map of the entire corridor divided into four defined focus areas, as previously described. Attendees were asked to provide specific related comments related to the completion of the sentence, "I wish State Street…"

5. Dot Voting – This exercise was only conducted during the second half of the second public open house. All comments from the four previous exercises were compiled and divided into four (4) specific lists, one for each focus area. Additionally, an overall list of issues and needs were compiled from all comments. Once compiled, the lists were posted on the walls around the room and attendees were given three dots for each list, one for each a high, medium, or low level of importance, each receiving a different point value. Once complete, the dots were tallied so that an aggregate score was calculated for each item on each list.

Upon review of all comments provided by the public, an aggregate analysis was conducted. The majority of the responses (33.7%) indicated that the public primarily uses State Street when driving a vehicle, whereas 13.8% of use it to walk and 6.1% use it to ride their bicycle. Additionally, the majority of the responses (52.5%) identified that State Street is used to either get into town or travel within the Town of Pendleton. Several other destinations were identified, including Indianapolis, Noblesville, and Carmel as indicated by 7.7% of the responses, but overall 11.6% of the responses indicated that they used State Street to leave the Town of Pendleton. The primary use indicated within the Town of Pendleton was for shopping (11%) with recreation at 8.3% and gas at 7.7% further identifying the importance of the community as a hub of the rural economy of southern Madison County and northern Hancock County. These comments also reveal that while there are segments of the population that value alternative modes of transportation, use of the automobile is still central to the community.

The combined results of the public comments received from the October 30th and first half of the November 12th meeting can be found in the Appendix of this document. Additional information regarding the most prominent issues identified during the community workshops is provided in the final analysis portion of this section.

STAKEHOLDER MEETINGS

Three (3) stakeholder group meetings were held to involve local stakeholders with a vested interest in the State Street Corridor, including the Pendleton Business Owners (February 4th), the Falls Pointe Business Park Owners (February 24th), and the South Madison Community School Corporation (February 24th). Although each group represents a distinct segment of the population, similar observations were present at each meeting.

VISIONING MEETINGS

To establish the vision for the State Street Corridor, two (2) public meetings were held at the Pendleton Public Library. The Visioning Process was separated into two parts, an initial session to craft the vision statement and a follow up session to review of the final vision statement and goals.

- April 8th - Part One incorporated public comment from previous meetings and developed key components to be built into the final vision statement. The six key components included the publicly identified issues of: (1) pedestrian and bicycle treatments, (2) traffic and congestion, (3) parking, (4) economic development, (5) drainage, and (6) beautification.

- April 15th - Part Two provided an opportunity for residents to revise the vision statement and goals that were established at the first meeting. To simplify the process, the vision and goals were composed in a standard format based on Part One before being presented to attendees for comment.

After a brief presentation of the meeting's purpose, both Part One and Part Two followed a discussion format led by a facilitator. Attendees signed in and received a short overview of what information was to be presented. During the first meeting, the facilitator provided a detailed explanation of the public comments received to date and the general categories that were most important to consider when crafting the vision and goal statements, i.e. bicycle and pedestrian issues represent the highest category of concern at approximately 26.4% of the public comments—followed by traffic congestion (18.1%), truck traffic (9.0%), and parking (8.3%). The issues were also separated by focus area to illustrate the differences along the corridor. Finally, an explanation was provided regarding the purpose and need of developing a vision statement, goals, and objectives related to a corridor study were presented to begin the discussion. At the second meeting, the facilitator briefly reviewed what had been presented during the initial visioning meeting, including the vision and goals that were developed. The remainder of the meeting engaged attendees in a discussion regarding revisions or additions to the vision statement and goals that might be necessary prior to finalization.

Attendees at Part One identified eleven (11) components to be included in the vision statement: a corridor that is safe, attractive, user-friendly, efficient, inviting, welcoming, and complimentary to historic character; provides continuity between focus areas; takes Pendleton to the next generation; and supports multi-modal transportation options. From these components the following vision statement was developed:

"State Street will be a safe and functional corridor for all users of present and future generations that maintains and extends Pendleton's character."

After attendees at the Part One meeting identified these eleven (11) components, goal statements were developed for each focus area.

However, the attendees at the Part Two meeting revised these goals so that some goal statements were overarching and applicable to the entire corridor. The final goal statements included: five (5) overarching, four (4) Focus Area 1, six (6) Focus Area 2, seven (7) Focus Area 3, and six (6) Focus Area 4. The final goal statements are provided in the Vision and Goals Section of the document where they are presented with further detail.

ALTERNATIVES MEETINGS

For the final activity of the public participation process, a public meeting was held on July 8th at the Pendleton Community Public Library to present proposed alternatives for reconfiguration of various elements of the corridor. The purpose of this meeting was to gather input from local residents on these proposed alternatives to determine preferred options that most align with their needs and desires.

There are innumerable options for roadway design and public input is vital for choosing the final configuration that accomplishes the set vision and goals. Proposed alternatives with varying degrees of impact—ideal, moderate, and low—were presented to illustrate the extent of potential roadway modifications to address the issues identified through the Public Participation Process. The Ideal Alternative provided generally has the largest impact zone, most aggressive modifications, and highest cost, while the Low Alternative includes minimal improvements within the existing right-of-way. The Moderate Alternative is often a balance somewhere between the ideal and low alternatives.

Similar to the visioning meetings, the proposed alternatives were presented in a discussion format to directly engage local residents in the decision-making process. The discussion generated a lot of questions for how each proposed alternative was selected and how each proposed alternative might affect local residents, whether perceived or real. This format allowed residents to get clarification on the complexities of roadway configuration and understand the details involved in each proposed alternative.

The following topics were covered during the discussion.

1. Existing Conditions – Residents were able to review the major challenges facing each of the four (4) focus areas to establish a context for the proposed alternatives.

2. Access Management – The MPO staff provided information on the importance of managing roadway access through local policies and how management can dictate existing and future roadway design issues. For example, the spacing of intersections and limitations on curb cuts (driveways) can significantly impact traffic flow and frequency of crashes.

3. Focus Area Alternatives – An ideal, moderate, and low impact alternative was proposed for each of the four (4) focus areas. Attendees were asked to weigh the pros and cons of each of the proposed alternatives to identify the option that best satisfied the vision statements and goals established during the Public Participation Process.

No final decisions were made at the meeting regarding any of the proposed alternatives. Attendees requested more time to review the information and generate additional questions to better understand the options available. Although attendees thought the meeting provided important information, they also commented on the complexity and amount of information covered at the meeting. For this reason, presentation boards presented at the meeting were posted at the Pendleton Town Hall and on the project website, www.planstatestreet.com, to allow residents an opportunity to view for several additional weeks. As a follow-up to this meeting and to simplify the selection process, a panel of experts was established to assist in the selection of the final alternatives.

FINAL ANALYSIS

Throughout the Public Participation Process, the majority of the comments clearly identified several distinct issues that the general public felt were important to be addressed. Many of the issues focused on specific intersections along State Street, including:

- Main Street (6.6%)
- Pendleton Avenue (2.8%)
- US 36/SR 67 (2.8%)
- Enterprise Drive (1.7%)
- I-69 On-Off Ramps (1.7%)
- CR 300 (1.1%)

Of all of the responses received, 23.2% involved bicycle and pedestrian issues, likely because of how "safe" the respondents felt. This concern for bicycle and pedestrian safety is also likely related directly to the three (3) other significant issues also repeated throughout the Public Participation Process. These include congestion (14.9%), parking (11.6%), and truck traffic (7.2%), and are discussed in further detail below.

BICYCLES & PEDESTRIANS

With the number of multi-use paths and sidewalks making up the Pendleton Bicycle & Pedestrian Network, it is not surprising that local residents have a deep interest in the movement of bicycles and pedestrians. According to local residents and leaders, the Pendleton Bicycle & Pedestrian Network is very popular, as there are a large number of residents and visitors that bike, walk, or jog for exercise and/or recreation. Similarly, it seems that many of the residents want to utilize State Street as a bicycle corridor, but refrain due to narrow lane widths and high traffic volumes. Children and pre-driving teens also often make up a significant portion of the biking community and represent a segment of the population that should be protected further reinforcing this concern.

Similarly, local residents seem to be leery of even crossing the corridor, whether by bike or on foot. This issue seems very significant when one considers that the majority of the "in-town" population is located on the south side of the State Street Corridor and the primary community destinations (i.e., Falls Park, ball fields, library, swimming pool, and majority of the trail system) are located on the north side. Overall, it seems that if the public hopes to utilize the corridor to reach the Downtown Business District or sites located north of the corridor, they would prefer to walk rather than ride a bicycle.

PARKING

Very few on-street parking spaces are available in the downtown area. A majority of properties surrounding the downtown area are residential and do not offer off-street parking. While this is not only an issue for the State Street Corridor in Pendleton, it does impact how the corridor is used to access adjacent businesses. Parking was identified as an issue on multiple occasions and at nearly every meeting. It was also noted that there is such a low supply of spaces that the Pendleton First United Methodist Church even encourages members to walk despite maintaining a dedicated parking lot.

The on-street parking spaces that do exist in the downtown area are parallel, which are often considered more difficult to use and are therefore less popular than dedicated parking lots. Residents suggested that stopping along a heavily traveled, congested corridor and trying to back-up into a space is nearly impossible because the traffic is usually so backed-up that that cars behind you do not have room to back up for you to make the required parallel parking movement. Some respondents even suggested that on-street parking be eliminated all-together, especially in those areas along State Street that are residential, as there seems to be less room and seem even more dangerous because other drivers are not expecting on-street residential parking directly on the corridor.

TRUCK TRAFFIC

Several years ago, the State of Indiana vacated SR 38 between Interstate 69 & US 36/SR 9. Since that time, the Town of Pendleton posted signs and established local ordinances that would prevent through truck traffic from utilizing this corridor, with the intention of alleviating congestion and hazardous pedestrian conditions. Unfortunately, based upon public opinion, little has changed regarding the amount of truck traffic and in fact, some local residents believe it has increased. Several respondents were even unaware that a local ordinance already existed and after learning this, suggested that the issue might be local law enforcement. Many respondents also suggested that if such an ordinance existed, then improved and additional signage needed to be added.

Residents noted not just the presence of unwanted and prohibited truck traffic, but the speed they travel through the community. This issue was generally related to the reluctance of local residents to utilize the State Street Corridor as a pedestrian or bicyclist. Both trucks and other vehicles often approach the entrance to the State Street Corridor at much higher rate of speed than allowed through the corridor. They also identified that heavy trucks and other similar oversized vehicles are approaching and traveling through the roundabout at SR 38 and CR 300 at higher speeds as well, causing repeated damage to the roundabout, curbs, and other areas adjacent to that intersection. Suggestions included that Pendleton Police need to improve enforcement of the local ordinance by issuing both speeding and prohibitive vehicle violation tickets specifically to truck traffic, including heavy work trucks, delivery trucks, semi-trailers, and other similar oversized vehicles. It was also noted that the difficulty for enforcement is that, while the majority of heavy truck traffic is prohibited, heavy trucks making deliveries and pick-ups within the downtown are exceptions to the rule. It was also suggested that the ordinance be reviewed and refined to be more specific and provide local law enforcement a greater ability to ticket truck drivers.

CONGESTION

Since the vacation of the segment of SR 38 (State Street) through Historic Downtown Pendleton, traffic congestion has seemed to increase rather than decrease, especially from the end of local school day through rush hour. As discussed above, some of this congestion could be caused from heavy trucks illegally using the corridor as a "shortcut" to SR 9 south to Greenfield/I-70, SR 38 to New Castle/Richmond, or US 36 to Greenville, OH. This "shortcut" tactic is especially noticed when traffic is diverted from I-70 or I-69 from an accident or when significant construction is occurring on segments east of Pendleton toward the Indianapolis Metropolitan Region.

In addition to these issues, soon after the vacation of SR 38, the Town of Pendleton replaced a stop sign with a new signalized intersection at Main Street. While an important improvement identified through the Comprehensive Planning Process in 2006, the new traffic light has not been adequately timed with the pre-existing light at Pendleton Avenue. However, it is likely that this is not the only issue, as the signalized intersection at US 36/SR 9 also needs to be aligned to see a smoother flow of traffic. Generally, it is understood that "traffic" is good for the overall economic development and financial health of the Town of Pendleton, but it is the flow at which that traffic is able to

travel to, along, and through the community and more specifically, the Downtown Area, that has become a significant challenge and concern to local residents, elected officials, and business owners.

Overall, the public comments identified that while the Town of Pendleton is a well-recognized and favored hub of the rural economy, the populations that reside within and adjacent to the community feel that recreational opportunity is an important and lacking, issue along the community's primary artery—State Street. Residents and visitors alike are reluctant to walk and bike to and from the community due to major safety and congestion issues. As residents move forward, they want to see State Street provide multi-modal transportation options that successfully blend with the historic community and build a supportive network for all roadway users, past, present, and future.

4 TRANSPORTATION ASSESSMENT

MOBILITY ASSESSMENT

State Street is an important corridor that serves to connect two principal arteries that serve a regional function. State Street will continue to grow in regional importance as a connector between Pendleton, IN and Noblesville, IN as the Northeast Indianapolis Metropolitan region continues to grow along the Interstate 69 corridor.

The focus of the mobility assessment is on the intersection level of service. Intersection capacity is the determinate of the maximum volume of traffic a roadway can carry. Poor level of service at an intersection will result in an inefficient utilization of the mid-block (i.e. middle of the block) segment capacity of the physical roadway itself. The State Street Corridor Study utilized peak-hour conditions as the assessment of intersection performance, as these periods represent the maximum traffic volume on the roadway.

Two methods were used to evaluation and future conditions along State Street. The first method used was the intersection capacity utilization (ICU) method. The ICU method is a precise calculation of the true-intersection capacity, and it designed to be less subject to manipulation. The method reports the intersection volume-to-capacity ratio. The second method that was used was the Highway Capacity Manual (HCM) 2010. The HCM 2010 method is a delay-based measure, and takes into account several operating conditions of the intersection. The HCM 2010 method requires much more data input, and is an established method for evaluating roadway performance with over 6 decades of use. When intersection capacity utilization and highway capacity manual methods are combined, they give the clearest overall picture of intersection performance.

Both the ICU and HCM methods give “Level of Service” outputs in the form of a letter, as well as other performance statistics of the intersection. However, the outputs of level of service for ICU and HCM are different. See Figure 4.1 and Figure 4.2

FIGURE 4.1 HIGHWAY CAPACITY MANUAL 2010

LOS	Control delay (s/veh)	Description
A	<= 10	This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10 - 20	This generally occurs with good progression and/or short cycle lengths. More vehicles stop than during level of service A, causing higher levels of average delay.
C	> 20-35	Higher delay may result from pair progression and/or longer cycle lengths. Individual cycle failures may began to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	> 35 - 55	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle length, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55 -80	This is usually considered to be the limit of acceptable delay. These high delay values generally (but not always) indicate poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.
F	> 80	This is considered to be unacceptable to most drivers. Conditions often occurs with oversaturation. It may also occur at high volume to capacity ratios below 1 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such high delay values.

FIGURE 4.2 INTERSECTION CAPACITY UTILIZATION		
LOS	Volume to Capacity	Description
A	⩽ 55%	The intersection has no congestion. A cycle length of 80 seconds or less will move traffic efficiently. All traffic should be served on the first cycle. Traffic fluctuations, accidents, and lane closures can be handled with minimal congestion. This intersection can accommodate up to 40% more traffic on all movements.
B	> 55% - 64%	The intersection has very little congestion. Almost all traffic will be served on the first cycle. A cycle length of 90 seconds or less will move traffic efficiently. Traffic fluctuations, accidents, and lane closures can be handled with minimal congestion. This intersection can accommodate up to 30% more traffic on all movements.
C	> 64% - 73%	The intersection has no major congestion. The majority of traffic should be served on the first cycle. A cycle length of 100 seconds or less will move traffic efficiently. Traffic fluctuations, accidents, and lane closures may cause some congestion. This intersection can accommodate up to 20% more traffic on all movements.
D	> 73% - 82%	The intersection normally has no congestion. Most of the traffic should be served on the first cycle. A cycle length of 110 seconds or less will move traffic efficiently. Traffic fluctuations, accidents, and lane closures can cause significant congestion. Sub optimal signal timings can cause congestion. This intersection can accommodate up to 10% more traffic on all movements.
E	> 82% - 92%	The intersection is right on the verge of congested conditions. Many vehicles are not served on the first cycle. A cycle length of 120 seconds is required to move all traffic. Minor traffic fluctuations, accidents, and lane closures can cause significant congestion. Sub-optimal signal timings can cause significant congestion. This intersection has less than 10% reserve capacity available.
F	> 91% - 100%	The intersection is over capacity and likely experiences congestion periods of 15 to 60 consecutive minutes. Residual queues at the end of green are common. A cycle length over 120 seconds is required to move all traffic. Minor traffic fluctuations, accidents, and lane closures can cause increased congestion. Suboptimal signal timings can cause increased congestion.
G	> 100% - 109%	The intersection is up to 9% over capacity and likely experiences congestion periods of 60 to 120 consecutive minutes. Long queues are common. A cycle length over 120 seconds is required to move all traffic. Motorists may be choosing alternate routes, if they exist, or making fewer trips during the peak hour. Signal timings can be used to distribute capacity to the priority movements.
H	> 109%	The intersection is 9% or greater over capacity and could experience congestion periods of over 120 minutes per day. Long queues are common. A cycle length over 120 seconds is required to move all traffic. Motorists may be choosing alternate routes, if they exist, or make fewer trips during the peak hour. Signal timings can be used to distribute capacity to the priority movements.

Intersections and roadway segments were analyzed for the AM/PM Peak Conditions in 2015 and 2035. Utilizing historical traffic counts, a growth factor of 2.25% was used for the forecast year calculated using the Compound Annual Growth Rate formula. This method assumes that traffic will grow slowly and proportionately over time, but does not take into consideration that different intensities of land-use will result in different intensities of traffic volumes. However, this method is appropriate for determining conservative estimates of future traffic volumes.

Pendleton is currently experiencing congestion that ranges from minimally acceptable conditions to unstable congested conditions during the AM peak period. Current analysis confirms that during the AM peak period, a majority of the intersections are experiencing oversaturated conditions. Outbound traffic during the AM peak is

experiencing increasingly congested conditions from State Road 67 to Interstate 69. Analysis further indicated que formations in excess of available storage capacity on the roadway, the effects of this are not captured in the analysis due to limitations of the method. Congestion in downtown Pendleton was one particular area where que effects are understated in the Highway Capacity Manual method. However, when comparing with the Intersection Capacity Utilization method, the true capacity of the intersections in downtown Pendleton are at failing or oversaturated conditions. Assuming 2.25% annual growth on State Street, 2035 traffic volumes along the corridor will begin to exceed available capacity resulting in excessive delay along entire corridor.

Pendleton experiences different congestion in the PM peak corridor in specific locations, for inbound priority movements. Congestion becomes more apparent the closer a person moves toward State Road 67 from Interstate 69. Excess que formation (i.e. traffic backing up at intersections) in downtown is also indicated, especially at Pendleton Avenue. This que formation is in reality effecting and degrading the operations of the Main Street traffic signal, but is not captured in the methods used for this study. By 2035, congestion along the corridor will reach oversaturated conditions in almost every intersection and segment, resulting in extreme congestion along the corridor. See Figure 4.3-4.5.

FIGURE 4.3 STATE STREET INTERSECTION CAPACITY UTILIZATION LEVEL OF SERVICE

INTERSECTING ROAD	2015 AM	2035 AM	2015 PM	2035 PM
SR67/SR9/US36	C (66.9%)	G (101.1%)	D (76.8%)	H (121.8%)
PENDLETON AVENUE	F (95.4%)	H (188.4%)	H (112.5%)	H (163.6%)
MAIN STREET	E (83.6%)	F (98.2%)	D (79.7%)	G (100.4%)
EXIT 219	G (103.1%)	H (158.1%)	C (69.2%)	G (101.4%)

Figure 4.4 STATE STREET HIGHWAY CAPACITY MANUAL INTERSECTION LEVEL OF SERVICE

INTERSECTING ROAD	2015 AM	2035 AM	2015 PM	2035 PM
SR67/SR9/US36	D (35.2s)	F (154.6s)	D (44.7s)	F (152.2s)
PENDLETON AVENUE	C (21.0s)	C (22.0s)	C (34.2s)	E (79.3s)
MAIN STREET	C (20.9s)	C (25.5s)	B (15.2s)	B (17.4s)
EXIT 219	F (80.3s)	F (424.5s)	D (45.4s)	F (245.8s)

FIGURE 4.5 STATE STREET HIGHWAY CAPACITY MANUAL SEGMENT LEVEL OF SERVICE

SEGMENT	2015 AM (OUTBOUND)	2035 AM (OUTBOUND)	2015 PM (INBOUND)	2035 PM (INBOUND)
EXIT 210 TO MAIN	D	F	C	F
MAIN TO PENDLETON	D	F	C	F
PENDLETON TO SR67	D	F	C	F

ACCESS MANAGEMENT

Access management is the coordinated planning, regulation, and design of access between roadways and physical land development. The chief goal of access management is to promote efficient and safe movement of people and goods by reducing the total number of conflicts a person experiences with other modes of transportation. Without access management, the function and character of major roadway corridors will deteriorate rapidly. Allowing safety and operations to deteriorate with the assumption that the transportation systems can be replaced, widened, or reconstructed in the future is no longer practical. Allowing frequent driveways, median openings, and traffic signals along a corridor will reduce safety and increase traffic congestion, placing the traveling public at greater risk of injury and death, and decreasing the reliability of the system.

As access density increases, crash rates will increase as well. Within Indiana, it has been demonstrated that 10 driveway cuts per mile will not adversely impact crash rates. However, from 10 cuts to 20 cuts, crashes will increase by 20%. At 30 driveway cuts per mile, crashes will increase by 50%. At over 70 cuts per mile, crashes will increase by

a staggering 300%. At the corridor level, State Street averages 19.09 driveways per mile. However, when separated into 5 access study areas, the corridor varies from 41.58 driveways per mile to 10.52 driveways per mile. See Figure 4.6

Figure 4.6 ACCESS CUT SPACING	
Area	Driveways per mile
Zone 1	27.77
Zone 2	21.21
Zone 3	41.58
Zone 4	10.52
Zone 5	13.40
Corridor-wide	19.09

Some of the adverse effects of failure to manage roadway access are the following:

- Increase in vehicular crashes and collisions (i.e. vehicle-vehicle crashes and vehicle-pedestrian crashes).
- Accelerated reduction in roadway efficiency, increased delay, and travel times.
- More frequent need for roadway reconstruction.
- Reduced aesthetics from frequent driveways, cluttered signs, inadequate area for landscaping.
- Increased fuel consumption from congestion.

The costs associated with poor access management don't only affect the traveling public, and local government agencies. Poor access management will also result in damage to the local and regional economy. Poor site access will reduce the volume of customers who are able to enter and exit a business, for example, a corner business may be inaccessible by qued traffic. Additionally, as the land-development increases and access management is ignored, the congestion and subsequent delay will gradually diminish the market reach of local businesses, and investment will shift to newer, better-managed corridors (adapted from Access Management Manual, 2nd Edition. (2014). Washington, D.C.: Transportation Research Board).

Intersection Spacing

The minimum acceptable intersection spacing for corridors is no less than 1,320 feet. The ideal spacing for intersections is 2,640 feet. Intersections that are within the minimum intersection spacing in Figure 4.7 are not suited for signalized intersections. Ideally, intersection improvements should be targeted for those that fall on or outside of the ideal intersection spacing in Figure 4.7. Signalized intersections should be placed evenly and uniformly along the corridor. When intersections do not fall evenly and uniformly across a corridor, it is difficult or impossible to have efficient and smooth progression signal to signal.

Currently, two intersections signalized intersections fall within each other:

- State Street and Main Street and State Street and Pendleton Avenue
- State Street and State Road 67 and State Road 67 and U.S. Highway 36

Intersection Influence Zone

The area around an urban intersection is complex. It is affected by the aggregate amount of conflicts that can occur within or near the physical intersection. Management of these conflicts require the identification of that area, which must take into account the impact length, perception-reaction distance, and the length of the car. Ideally, no access should be allowed within the intersection influence zone to decrease the likelihood of conflicts and crashes occurring within it. The intersections of State Street with State Road 67, Central Drive, and Independence Road have the most driveways within the intersection influence zone. Driveways built within intersection influence zones can cause a higher degree of right-angle collisions, especially when multiple lanes are present. Drivers will often attempt to cross several lanes of traffic with multiple blind spots as they enter the traffic stream (Figure 4.8, Figures 4.10-4.13).

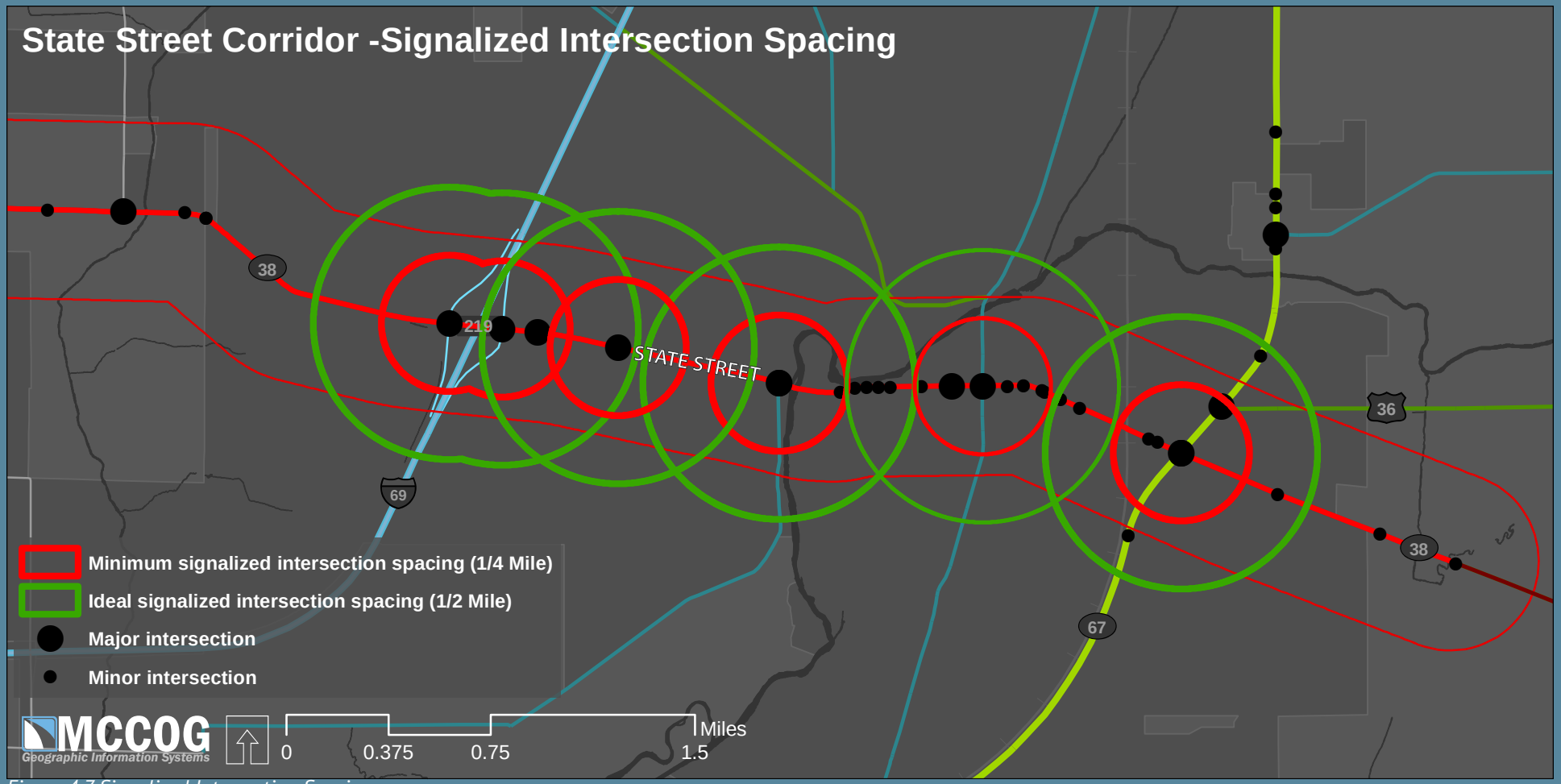

Figure 4.7 Signalized Intersection Spacing

FIGURE 4.8 DRIVEWAYS IN INTERSECTION INFLUENCE ZONE	
Name	Driveways
SR 67 and State St	7
State St and Central Dr	5
State St and independence Rd	5
State St and High St	4
State St and East St	3
State St and Mill Road	3
State St and Auto Store Dr	3
SR67 and Water St	3
SR67 and Huntsville Road	3
State St and Franklin St	2
State St and John St	2
State St and Enterprise Dr	2
SR67 and Market Rd	2
State St and CR600	2
State St and Main St	1
State St and Broadway	1
State St and Adams St	1
State St and East St	1
SR 67 and SR 38	1
State St and CR 300 W	1
State St and Woodrow St	1
State St and Heritage Rd	1
SR67 and Angle Road	1
State St and CR 675 W	1
State Rd and Fox Rd	1

Driveway Spacing

Unsignalized driveway or access connections will introduce added conflicts and delay into the traffic stream as vehicles enter and exit the roadway. Vehicle conflict points decrease as the space between driveways increases. As the conflict points decrease along a roadway, the task of driving becomes simpler, decreasing the likelihood that a crash will occur. During low volume conditions, larger gaps between vehicles will occur, allowing drivers within the traffic stream to maintain their speed, and brake within a short distance to the driveway. Additionally, drivers attempting to enter the traffic stream can better judge gaps in distance and safely enter the traffic stream without impeding traffic already within it. Conversely, with high volumes such as State Road 67, gaps are short and the driver has little opportunity to reduce the gap with a preceding vehicle. As a result, vehicles exiting the roadway can cause a "shock-wave" or "ripple-effect" throughout the following vehicles, slowing traffic to a crawl. This effect can result in a larger degree of rear-end and lane changing crashes. In addition, drivers attempting to enter the roadway must be more aggressive because the gaps between traffic is much narrower.

The State Street corridor has a total of 121 driveways that are too closely spaced within the entire corridor. The State Road 67 corridor has a total of 56 driveways that are not within the minimum spacing criteria (Figure 4.9, Figures 4.14-4.17).

FIGURE 4.9 DRIVEWAYS TOO CLOSELY SPACED	
Corridor	Driveways
State Street Corridor	121
State Road 67 Corridor	56

State Street and Enterprise Drive

The intersection of State Street and Enterprise Drive is experiencing a higher than normal degree of crashes along the corridor. Crashes appear to be related to increasing traffic volumes, and the current design of

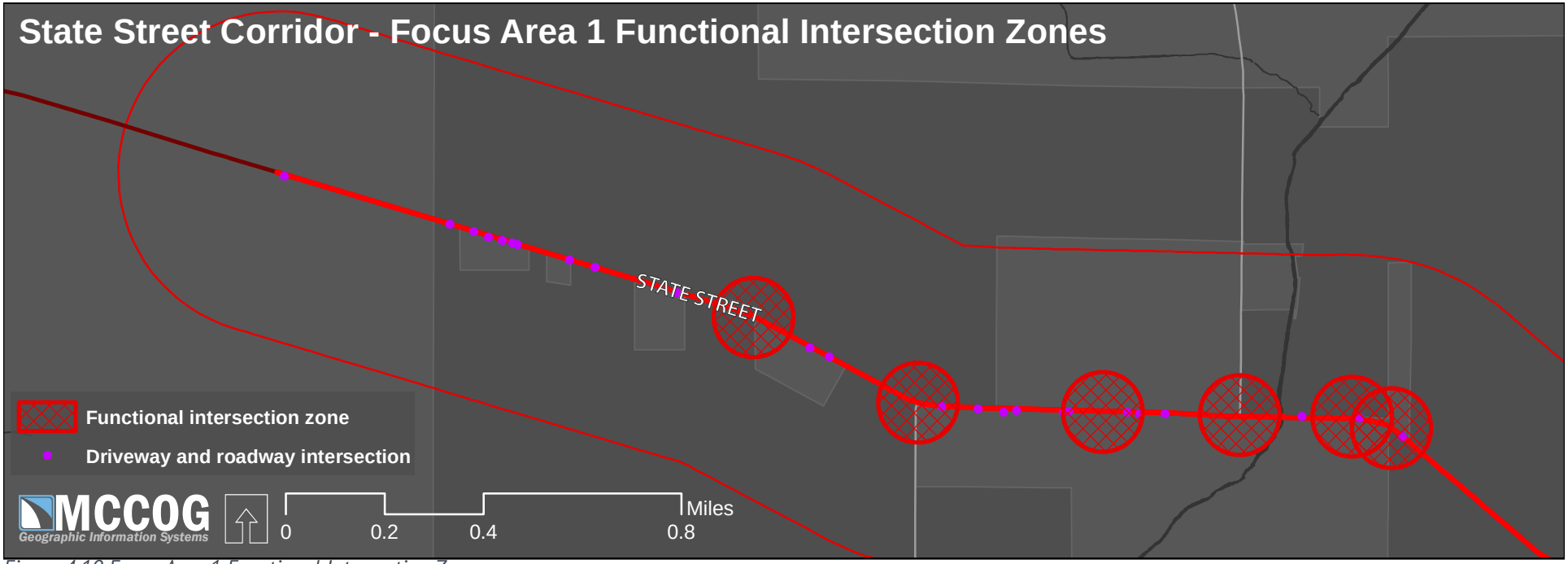

Figure 4.10 Focus Area 1 Functional Intersection Zone

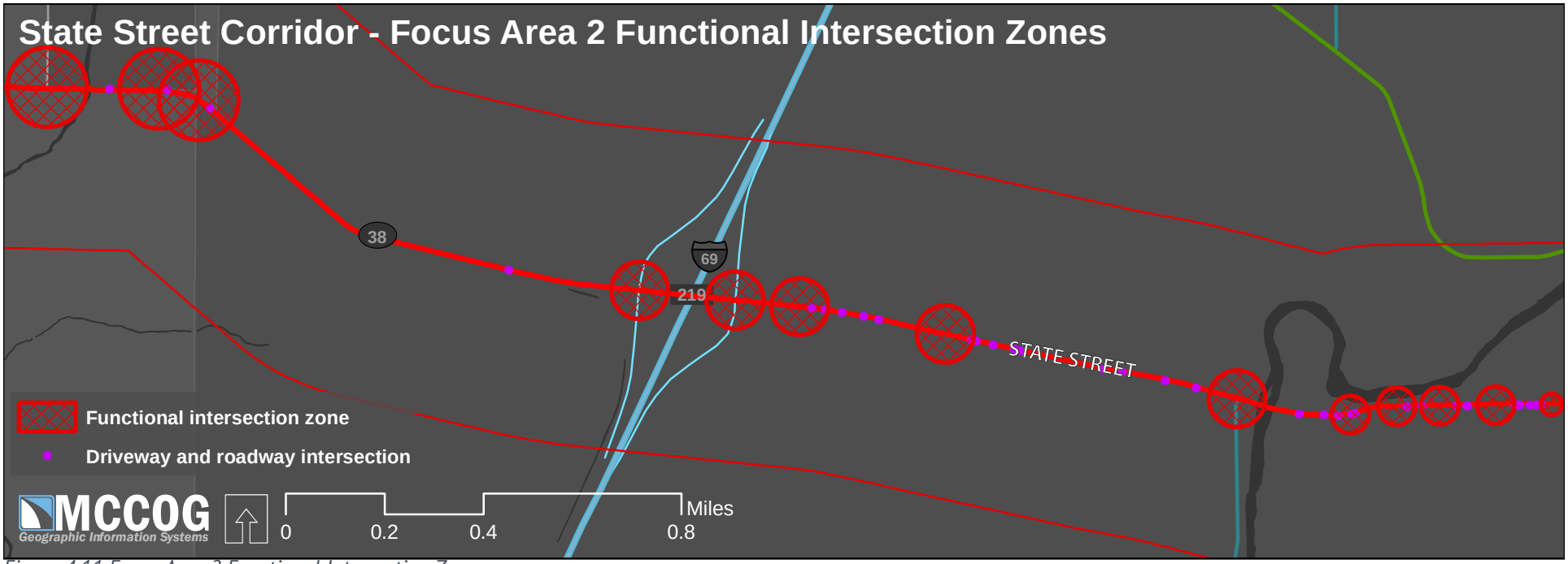

Figure 4.11 Focus Area 2 Functional Intersection Zone

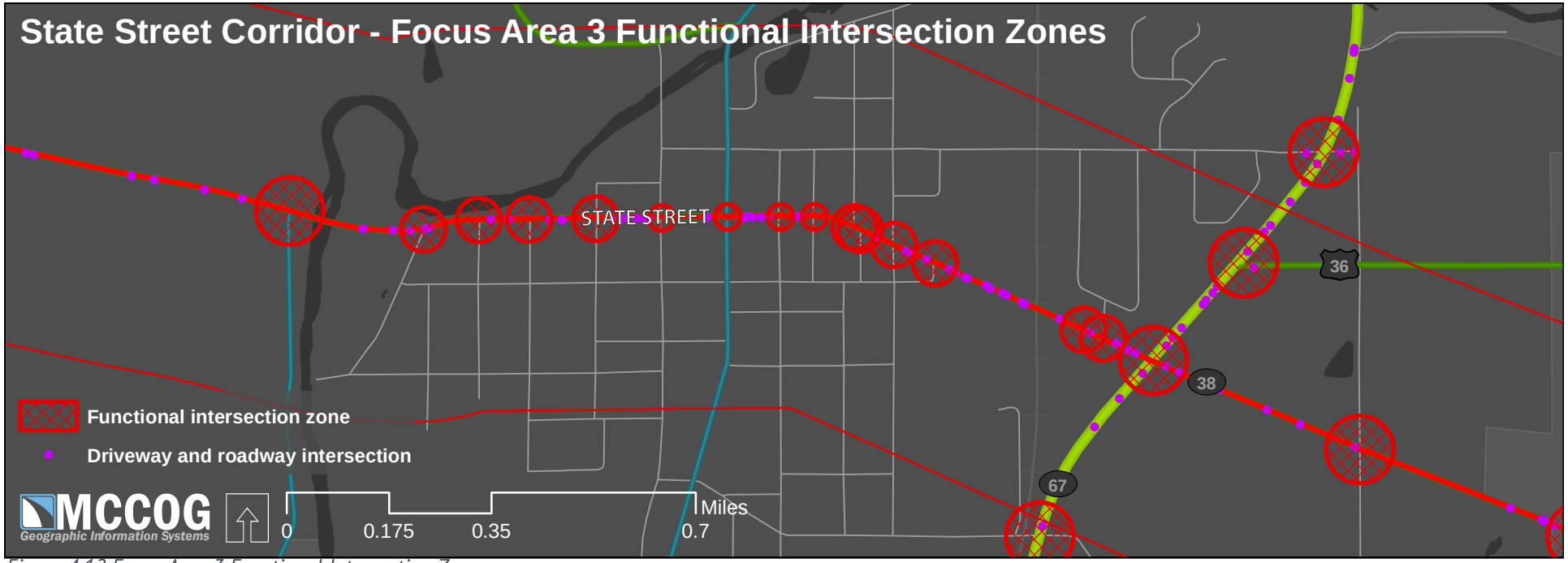

Figure 4.12 Focus Area 3 Functional Intersection Zone

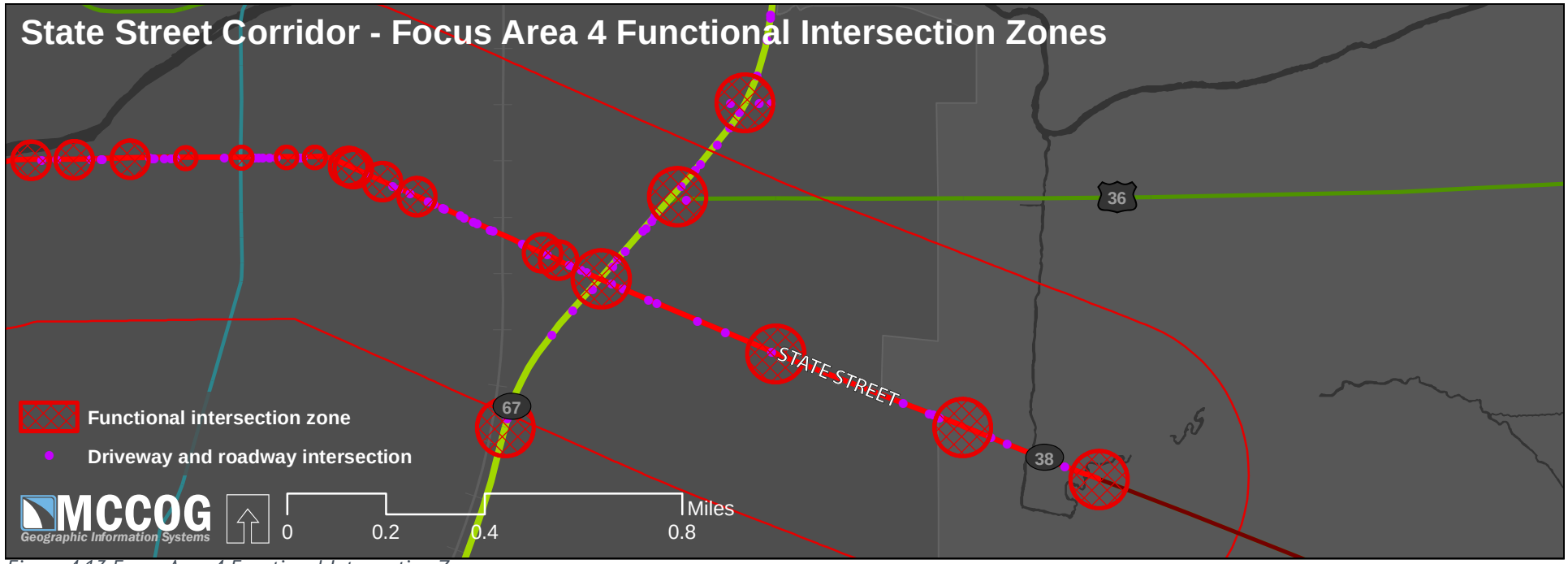

Figure 4.13 Focus Area 4 Functional Intersection Zone

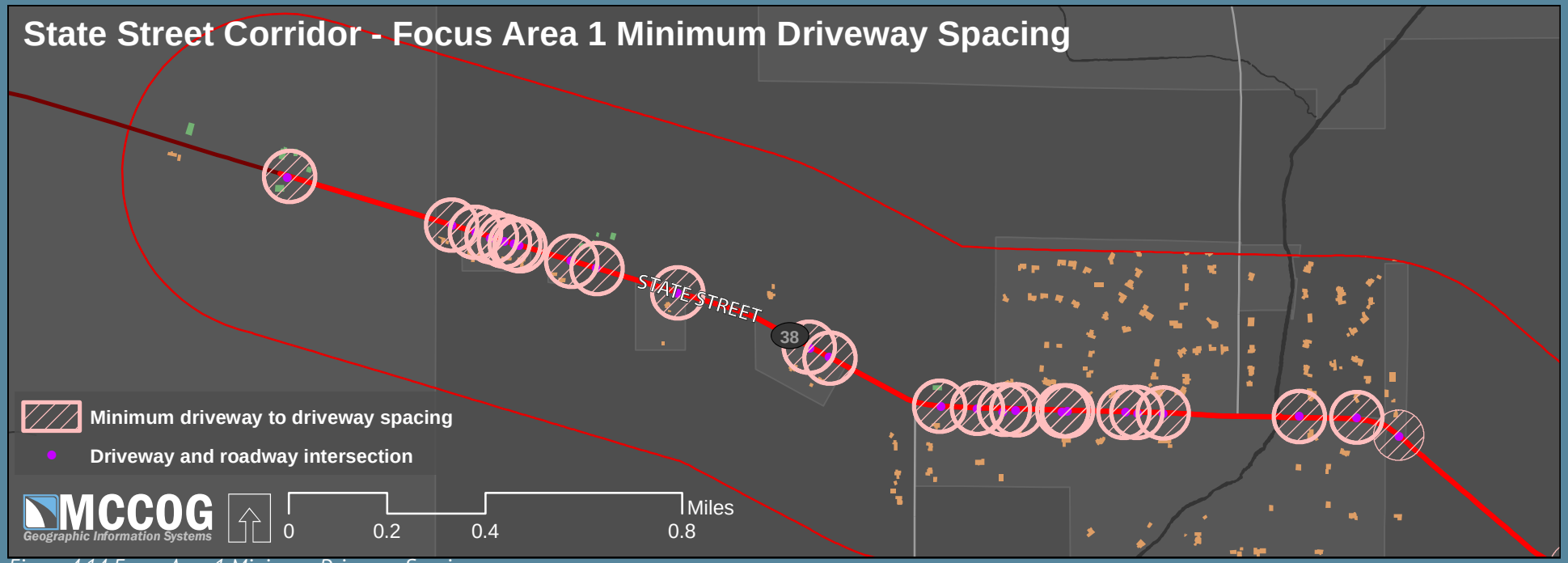

Figure 4.14 Focus Area 1 Minimum Driveway Spacing

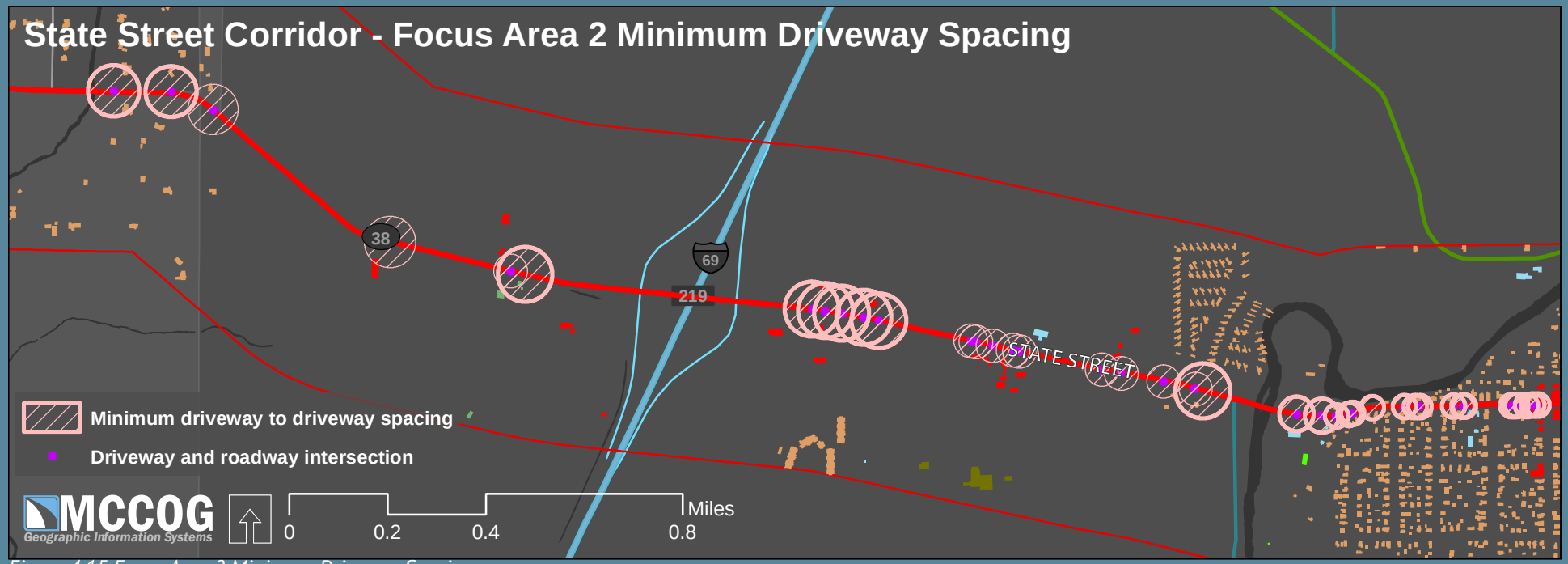

Figure 4.15 Focus Area 2 Minimum Driveway Spacing

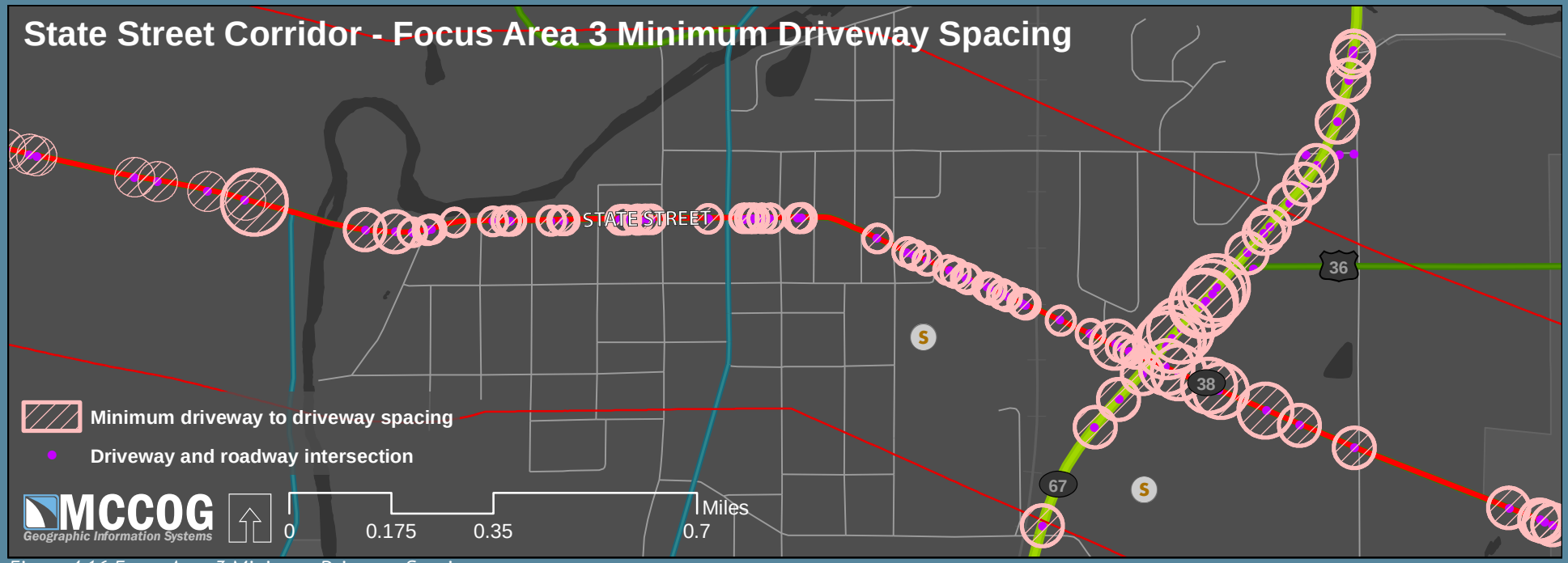

Figure 4.16 Focus Area 3 Minimum Driveway Spacing

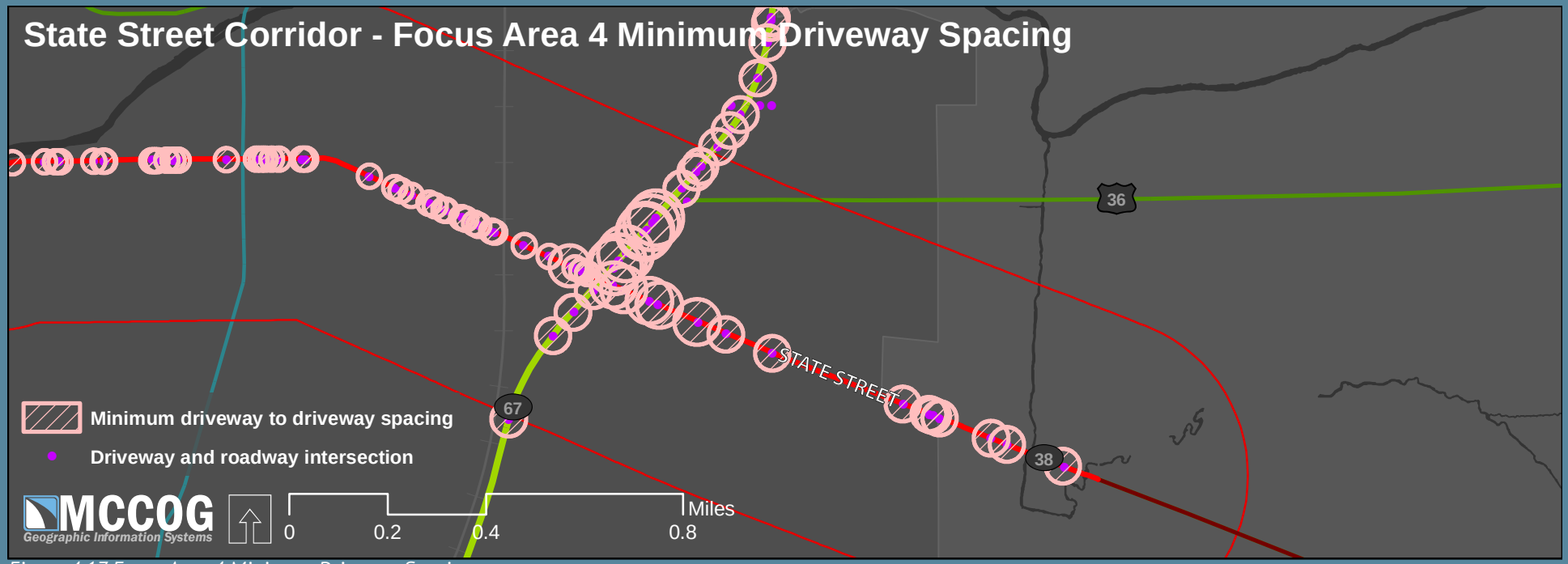

Figure 4.17 Focus Area 4 Minimum Driveway Spacing

the intersection is not able to adequately handle the increase in the number of vehicles in the area. The roadway is spaced approximately 530 feet from the nearest intersection. Current best practice indicates that traffic signal spacing between signalized roadways should be no less than 1,320 feet and ideally 2,640 feet. Poor roadway placement will adversely impact what treatment options that are available at this intersection, which will result in increased delay.

State Street and State Road 67

The intersection of State Street and State Road 67 is experiencing higher than average crash statistics, as well as a larger degree of congestion. The signalized intersection is within too close of proximity to the signalized intersection at U.S. 36 which is contributing congested conditions. Additionally, this intersection has the largest degree of driveways built within the intersection influence zone. This is reinforced by crash statistics which indicate clusters of crashes a driveway entrances, right-angle collisions, and crashes that occurred with vehicles attempt to cross multiple lanes (Figure 4.18). Of the total collisions occurring at this intersection, nearly 28% of them appear to be directly related to driveways adversely impacting the safety within the intersection. Additionally, this section of the corridor exhibits a high

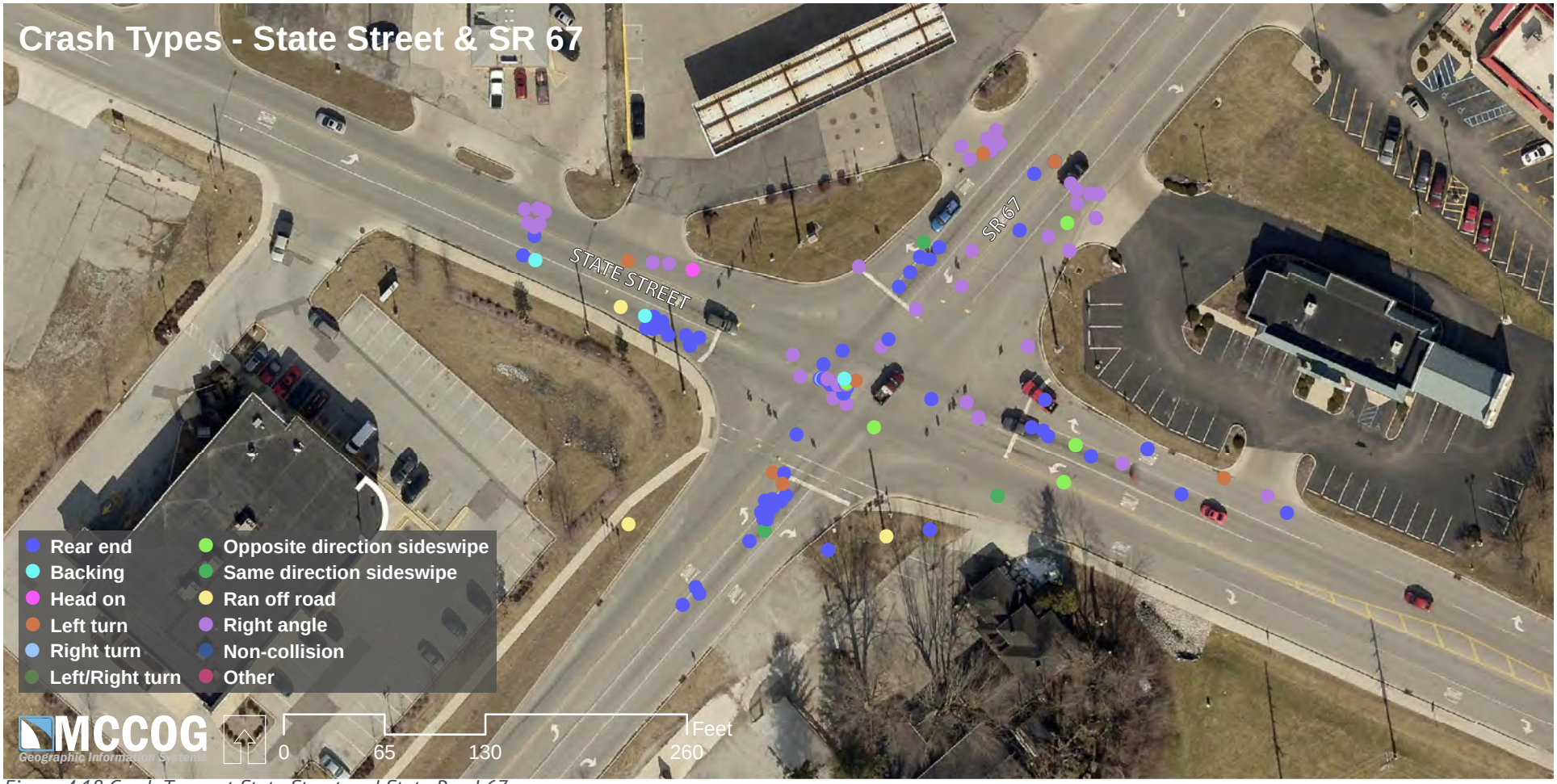

Figure 4.18 Crash Types at State Street and State Road 67

degree of driveways placed within close proximity to each other. This has the effect of increasing the number of conflict points within the immediate area of this intersection, as well as reducing transportation reliability by increasing the degree of ripple-effect congestion from slowing and braking vehicles.

NON-MOTORIZED

The historic downtown area of State Street (Focus Area 3) appears to have excellent connectivity and conditions that are ideal for non-motorized forms of transportation. Roadways are too narrow in many locations to support on-road bicycle facilities beyond sharrow markings, however, traffic speeds around 20 MPH are comfortable. Outside of Focus Area 3, the State Street corridor is mostly hostile to the car-less traveling public. At State Street and State Road 67, the width of the roadway combined with an uninviting environment for pedestrians discourage those from traveling by foot in this location. Additionally, the degree of conflict points in this area, combined with high-speeds make this a dangerous area for cyclist. In Focus Area 1 and 2, high traffic volumes, high speeds, and narrow shoulders make this are a less inviting environment for cyclists and pedestrians. State Street over Interstate 69 creates a prohibitive barrier, which discourages cyclists and pedestrians from accessing recreational, retail, and restaurant activities despite major commercial and residential uses within the area.

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5 IMPLEMENTATION

IMPLEMENTATION

With any Planning document, its value is dependent on the ability for the community to address goals and objectives developed through a dynamic planning process including significant comment and direction from the general public, which includes local residents, community leaders, and elected officials. In review of the Combined Thoroughfare and Land Use Plan (CTLUP) adopted by the Pendleton Town Council in 2006, the direction identified through the planning process closely align with the Plan State Street Corridor Study. Thus, the goals presented in the CTLUP regarding the future development of the Pendleton transportation system still apply:

- **Road Development** – Develop a well-connected transportation system that is aesthetically pleasing, environmentally-sound, and safe for all modes of travel.

- **Pedestrian Connectivity** – Maintain a high-level of pedestrian connectivity in all developments, construction projects, and local infrastructure improvement plans.

- **Land Use Control** – Regulate the use of land in the Greater Pendleton Area to maintain a small town atmosphere and conserve valuable open space, while also accommodating growth.

- **Development Design** – Manage all new development proposals through zoning codes that support progressive land use design, supports continuous multi-modal activity, and limits the town's investment in new infrastructure and services.

- **Environmental Consideration** – Regulate all development and construction projects so that they adhere to the environmental concerns of the community and integrate progressive methods of environmental sustainability.

More specifically, the CTLUP suggests the following objectives for the Road Development as improvements are made to the local transportation system:

1. Limit adjacent land uses to enhance traffic flow and aesthetics.

2. Regulate access on major arterials, minor arterials, and all boulevards by limiting the number of curb cuts, median cuts, and intersections.

3. Provide landscape elements and street trees whenever possible.

4. Incorporate storm water drainage plans into all road construction projects.

5. Install curbs, gutters, and sidewalks into all road construction projects.

6. Preserve greenspace during road construction projects, whenever possible.

7. Design intersections to accommodate pedestrian activity, regardless of location within the community.

8. Use creative traffic-calming measures to slow or reduce traffic, such as traffic tables, stamped concrete or brick crosswalks, bump-outs, and aesthetic elements like landscaping, trees, and planters.

9. Incorporate natural drainage and other environmentally-friendly into the design of roadways, whenever possible.

10. Provide consistent and easy-to-read wayfinding elements (signs) on high traffic roadways throughout the Greater Pendleton Area.

However, the CTLUP should be updated at least every 10 years to ensure that the development of the transportation system of the Greater Pendleton Area develops in a manner that is responsive to the

development pressures facing the community. The Plan State Street Corridor Study provides a fresh look into the needs and desires of the community for the State Street Corridor and its adjacent intersecting streets and pedestrian ways.

FINAL RECOMMENDATIONS

As stated previously, the final two public participation activities for the State Street Corridor Study included a visioning meeting and an alternatives meeting. During the visioning meeting, participants developed goals to guide the development of alternatives along the State Street Corridor. A portion of these goals, referred to herein as strategic recommendations, identified specific treatments and tasks that should be universally applied to the entire corridor. However, other goals were also developed specific to each of the four (4) focus areas of the corridor. Based upon these focus area goals, a series of alternatives were presented at an Alternatives Meeting.

To do this, each focus area featured four (4) alternatives:

- Ideal Improvements
- Moderate Improvements
- Low Improvements
- No-Build Alternative

Ideal Improvements were developed to satisfy all of the goals that were established for the corridor and each individual focus area. Moderate and Low Improvements came at the cost of decreased levels of vehicular traffic efficiency, but with maximum safety and multi-modal improvements. Finally, the No-Build Alternative features zero improvements along the corridor.

Professional staff from the Town of Pendleton utilized a decision matrix to select the preferred alternatives to be included in the Plan State Street Corridor Study. The outcome of this exercise produced a list of eight final alternatives to be applied to the State Street Corridor. More specifically, each of the four focus areas included a preferred alternative for the treatment of intersections, as well as the treatment for those areas between intersections, referred to as "mid-block". In turn, these preferred alternatives were further described as specific objectives to meet the previously developed goals.

Of the four alternative types presented for each treatment and focus area, the Town of Pendleton selected the "Ideal Improvement" Alternative for all treatments and focus areas. On the following pages, these alternatives or final recommendations are displayed in the following manner:

- Focus area recommendations (goals & objectives)
- Focus area map
- Sub-segment treatment plan view graphics
- Cross-section graphics in sub-segment treatment plan

To further manage the understanding and implementation of the final alternatives, an Action Plan Matrix has been provided in Appendix D of this document. This matrix includes the goals and objectives of the plan, addresses each of the focus areas, its sub-segments, and their preferred alternative treatments, as well as priorities and potential funding mechanisms.

NEXT STEPS

In addition to the recommendations identified, the Town of Pendleton should immediately focus on developing a Capital Improvement Plan (CIP). While the State Street Corridor Plan provides specific analysis and suggested improvements to a very small portion of the community and other existing planning documents provide further guidance on the future of the community, a Capital Improvement Plan (CIP) would provide a schedule and analysis of any capital investments identified in those plans. This document would provide information regarding specific road improvements, not only along the State Street Corridor, but also regarding the future improvement and treatments for all infrastructure within the Greater Pendleton transportation system. The CIP would address all thoroughfares, local streets, and alleys, but also state roads, intersections, pedestrian crossings, multi-use paths, trails, bikeways, and sidewalks.

In addition to elements of the transportation system, the Town of Pendleton should include all other capital improvements under the jurisdiction of the community. These would include ADA compliance improvements, any improvements and maintenance projects associated with Falls Park and its amenities, considerations for existing and future roadway, security, and pedestrian lighting, community signage and gateway improvements, facility and town-owned property maintenance, as well as any improvements necessary for local utilities, fire services, needs of the police department, or any other civic-owned or managed property or service.

By completing a CIP and incorporating capital improvement needs in a comprehensive manner, the community would have the ability to develop specific estimates and timelines for the completion of those improvements in relation to the anticipated revenue and help to determine annual budget amounts to ensure that the schedule of improvements is met. However, when developing a Capital Improvement Plan (CIP), the community should draw upon the projects, improvements, and other recommendations denoted in all existing plans still current:

- Pendleton Comprehensive Plan
- Pendleton Thoroughfare & Land Use Plan
- Pendleton Parks & Recreation Master Plan
- Pendleton Downtown Revitalization Plan

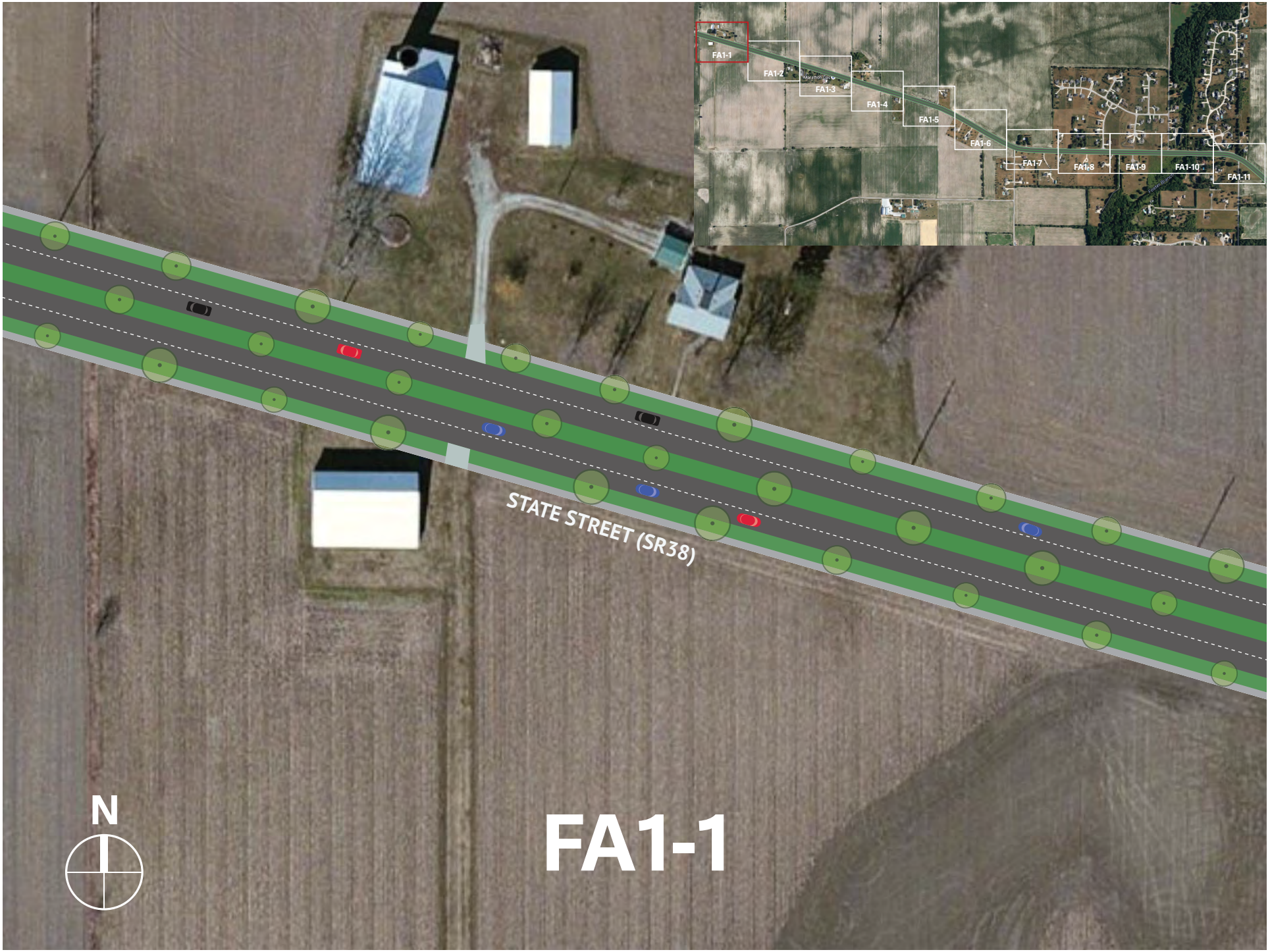
STRATEGIC RECOMMENDATIONS

STRATEGIC GOAL 1	Update comprehensive plan to identify future land-use growth locations.	
	OBJECTIVE S.1.1	Ensure that corridor plan recommendations are included in comprehensive plan updates.
STRATEGIC GOAL 2	Ensure that corridor goals and objectives are met in future land-use decisions.	
	OBJECTIVE S.2.1	Amend local ordinances to include corridor overlay district with access control measures.
STRATEGIC GOAL 3	Coordinate with state, regional, and local transportation partners to ensure that corridor goals are met.	
	OBJECTIVE S.3.1	Ensure corridor plan is made available to Indiana State Department of Transportation and part of State transportation plans.
	OBJECTIVE S.3.2	Ensure corridor plan is made available to the regional Metropolitan Planning Organization, and amended into regional Long Range Transportation Plan/ Metropolitan Transportation Plan.
STRATEGIC GOAL 4	Ensure consistency between corridor goals and objectives in present and future central business district plans.	
	OBJECTIVE S.4.1	Review corridor plan and future central business district plans to maintain consistency and rectify any conflicts between plans.
STRATEGIC GOAL 5	Extend corridor identity elements.	
	OBJECTIVE S.5.1	Standardize decorative signage, fixtures, and themes throughout the corridor.

FOCUS AREA 1 (FA1) RECOMMENDATIONS

FA1 GOAL 1	Improve safety for all users.	
	OBJECTIVE 1.1.1	Extend right turn lane length at Fox Chase Drive to increase safe deceleration and sight-line distance.
	OBJECTIVE 1.1.2	Extend right turn lane length at CR 600 W to increase safe deceleration and sight-line distance.
	OBJECTIVE 1.1.3	Realign CR 600 W intersection to the southeast of State Street (SR38) to increase sight line distance and eliminate blind intersection.
FA1 GOAL 2	Establish Focus Area 1 gateway elements.	
	OBJECTIVE 1.2.1	Construct small "Welcome to Pendleton" sign at western corporate limits.
	OBJECTIVE 1.2.2	Adopt common landscaping within the landscaped median and planting strip between roadway and multi-use path.
FA1 GOAL 3	Connect Focus Area 1 with greater Pendleton.	
	OBJECTIVE 1.3.1	Expand right of way to maximum of 90' at midblock segments to accommodate four (4) through lanes with landscaped medians, multi-use path, and dedicated left-turn lanes.
	OBJECTIVE 1.3.2	Expand right of way to maximum of 102' at intersections. Right-of-way expansion will accommodate four (4) through lanes with landscaped medians, multi-use path, and dedicated left-turn lanes.
FA1 GOAL 4	Identify multi-modal options.	
	OBJECTIVE 1.4.1	Construct 10' multi-use path on both sides of State Street.

FOCUS AREA 1 (FA1) SUB-SEGMENT TREATMENT OVERVIEW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FA1-11
STATE STREET (SR38)
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FA1-7
FA1-8
FA1-9
FA1-10
FA1-11
STATE STREET (SR38)
N

FA1-2

FA1-1
FA1-2
FA1-3
FA1-4
FA1-5
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FA1-8
FA1-9
FA1-10
FA1-11
STATE STREET (SR38)
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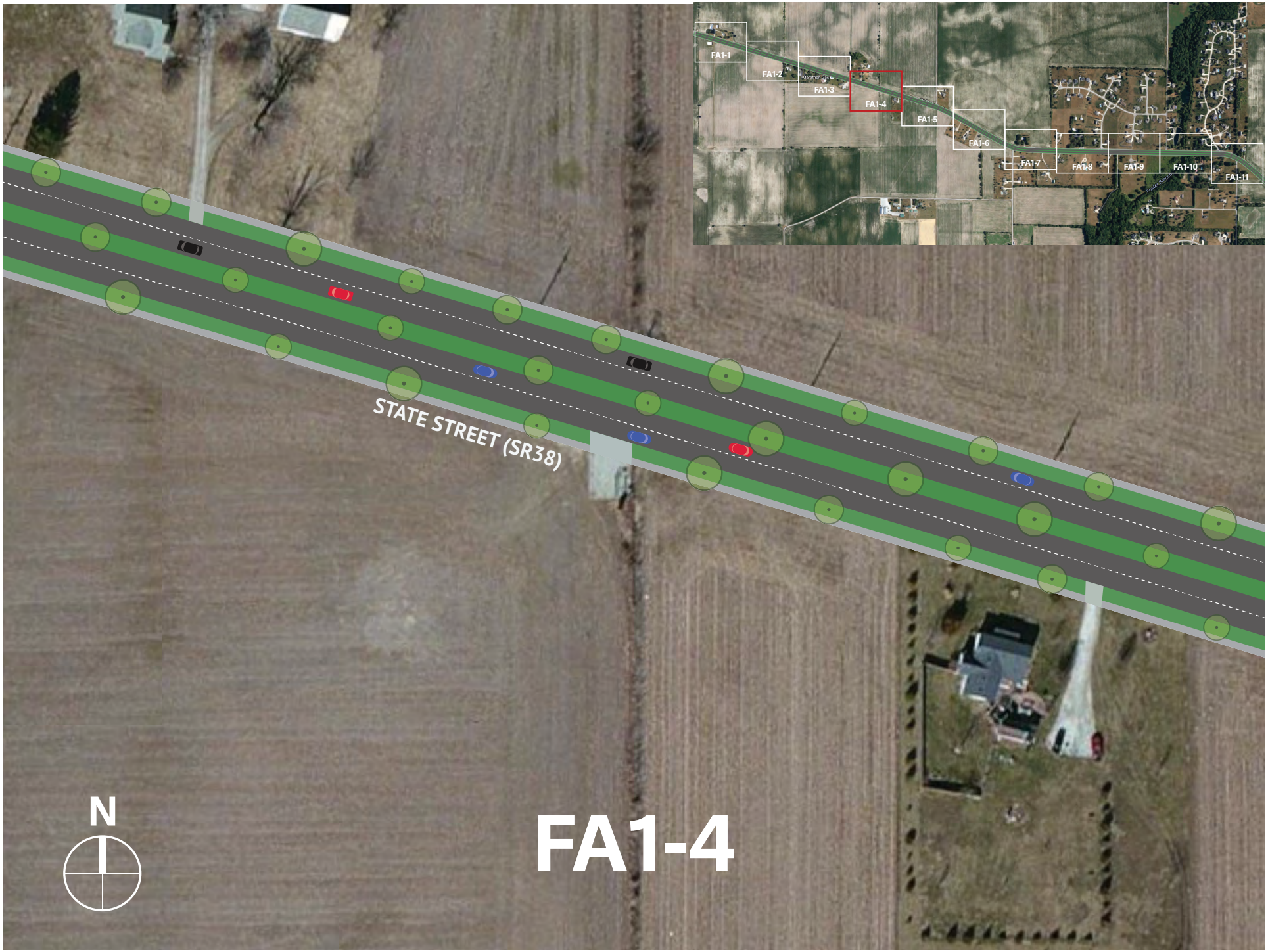
FA1-3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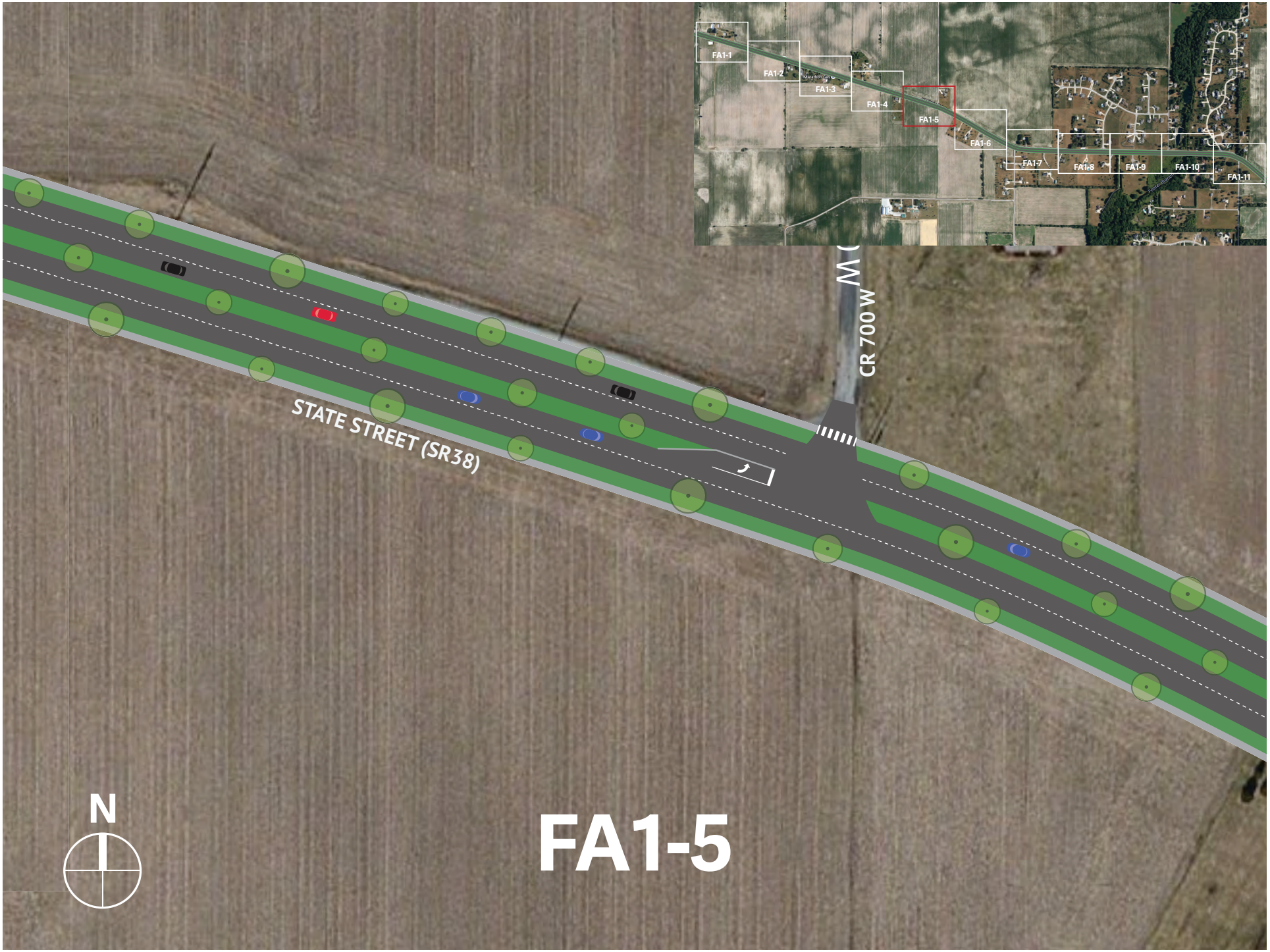
FA1-11
STATE STREET (SR38)
N
FA1-4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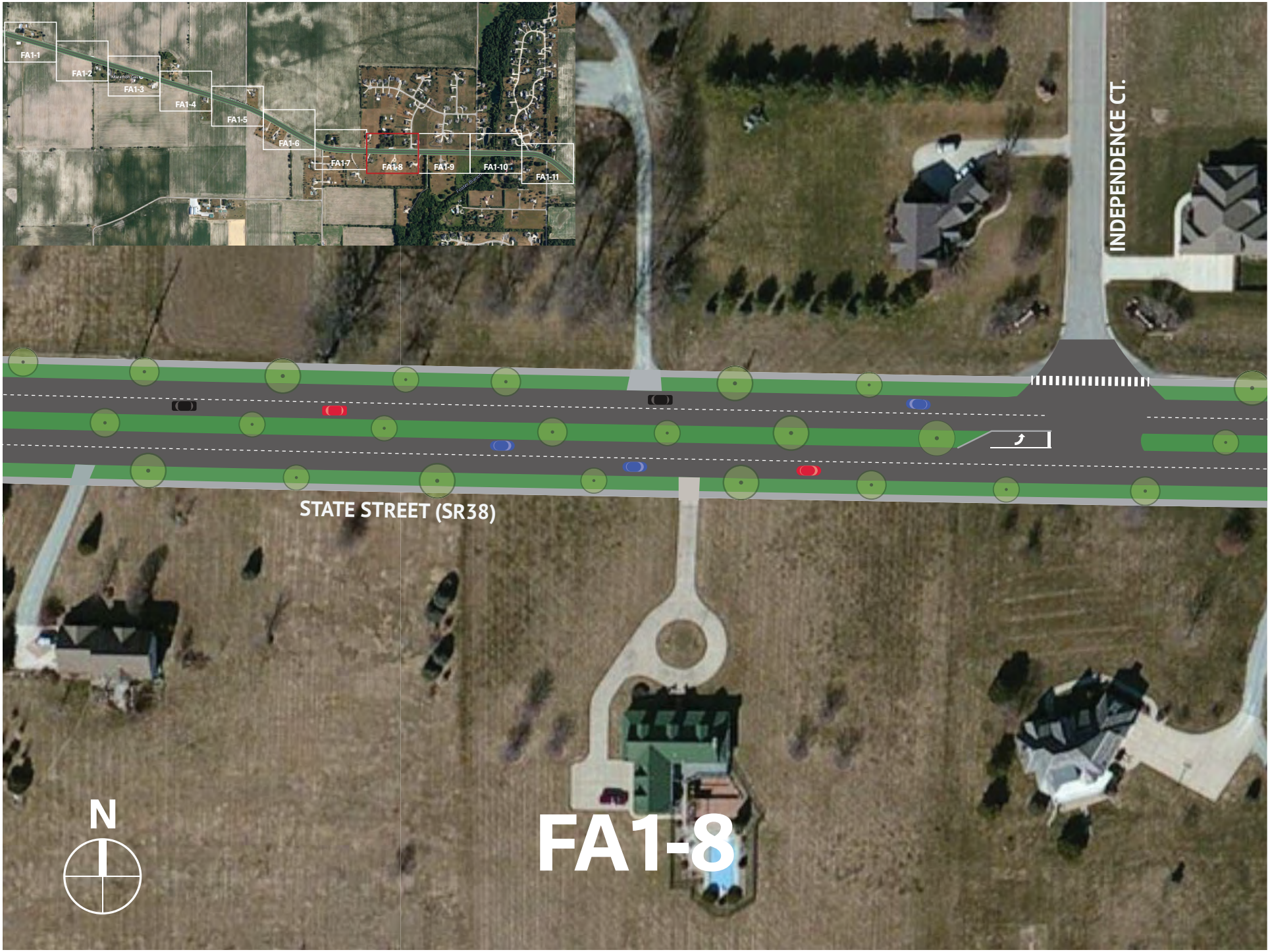
FA1-8
FA1-9
FA1-10
FA1-11
CR 700 W
STATE STREET (SR38)
N
FA1-5

STATE STREET (SR38)
N
FA1-6
FA1-1
FA1-2
FA1-3
FA1-4
FA1-5
FA1-6
FA1-7
FA1-8
FA1-9
FA1-10
FA1-11

FA1-1
FA1-2
FA1-3
FA1-4
FA1-5
FA1-6
FA1-7
FA1-8
FA1-9
FA1-10
FA1-11
STATE STREET (SR38)
CR 675 W
N
FA1-7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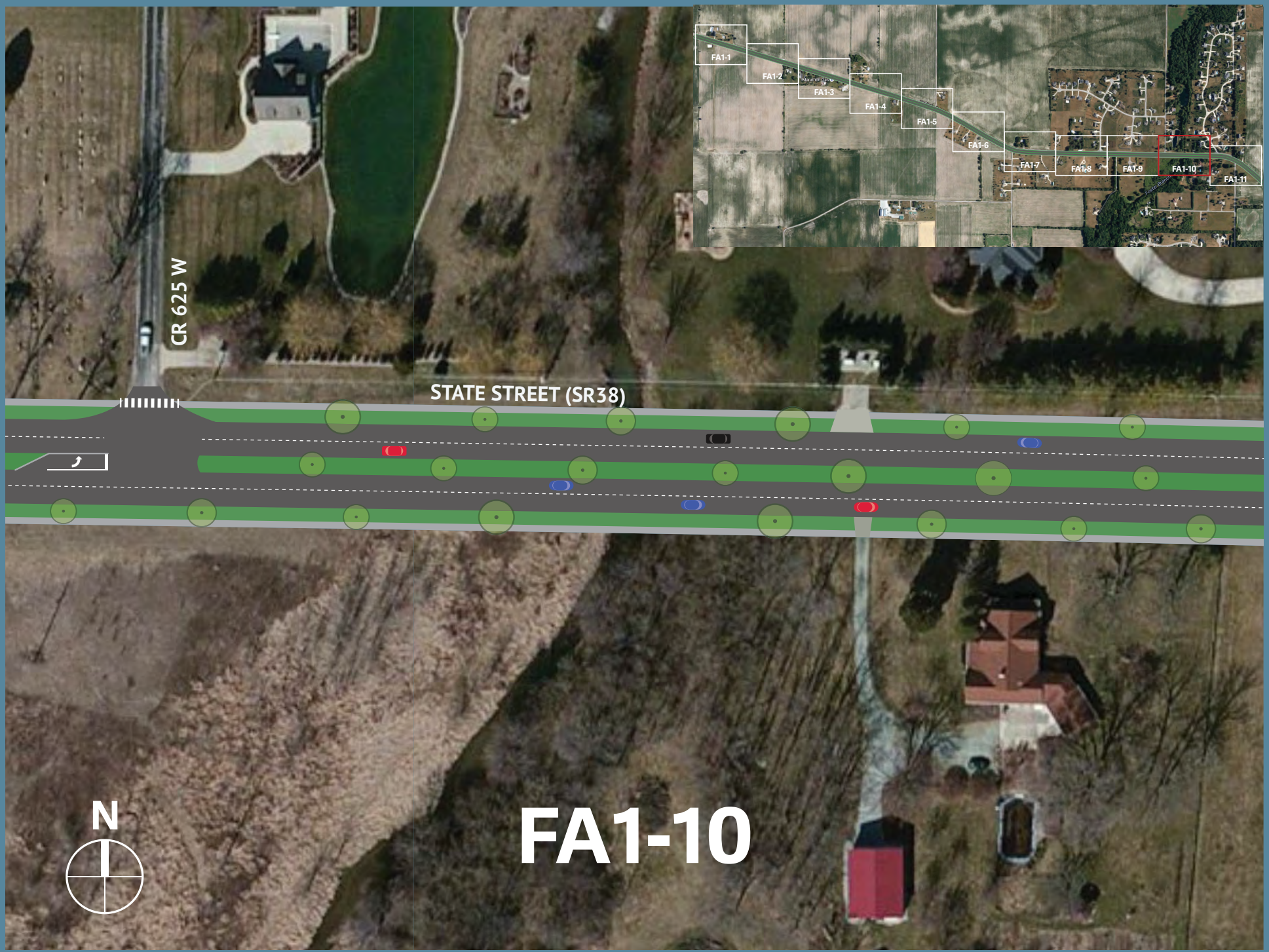
FA1-3
FA1-4
FA1-5
FA1-6
FA1-7
FA1-8
FA1-9
FA1-10
FA1-11
INDEPENDENCE CT.
STATE STREET (SR38)
N
FA1-8

STATE STREET (SR38)
FA1-1
FA1-2
FA1-3
FA1-4
FA1-5
FA1-6
FA1-7
FA1-8
FA1-9
FA1-10
FA1-11
N
FA1-9


CR 625 W
STATE STREET (SR38)
FA1-1
FA1-2
FA1-3
FA1-4
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FA1-6
FA1-7
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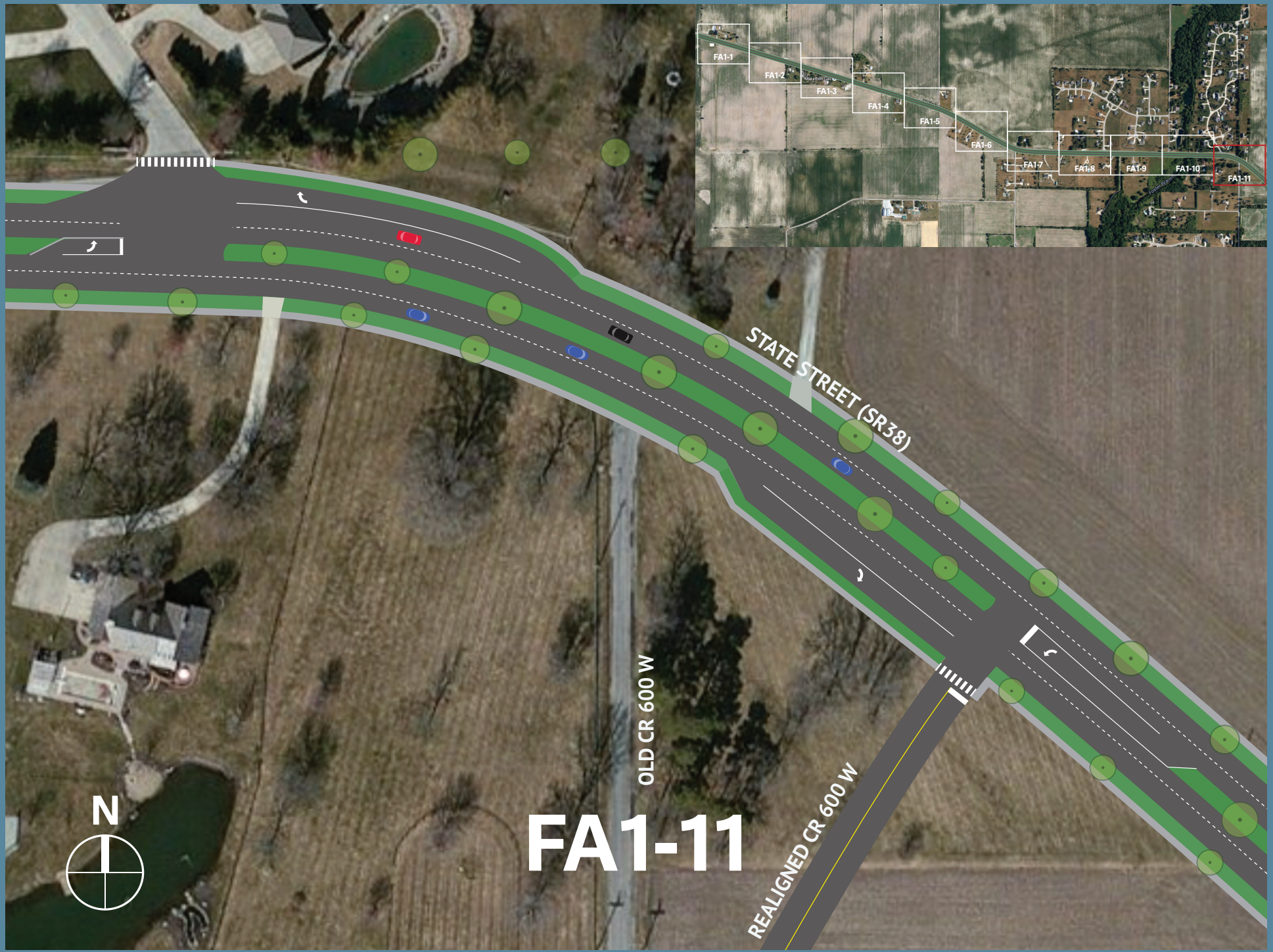
FA1-10
FA1-11
N
FA1-10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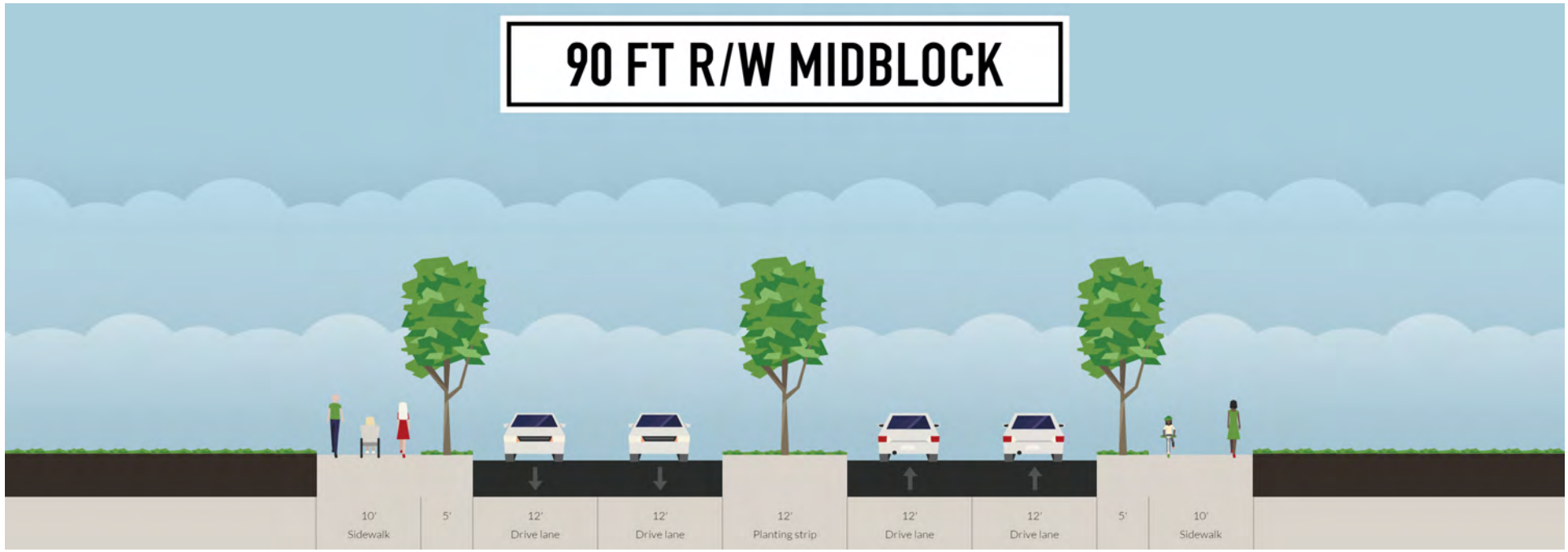
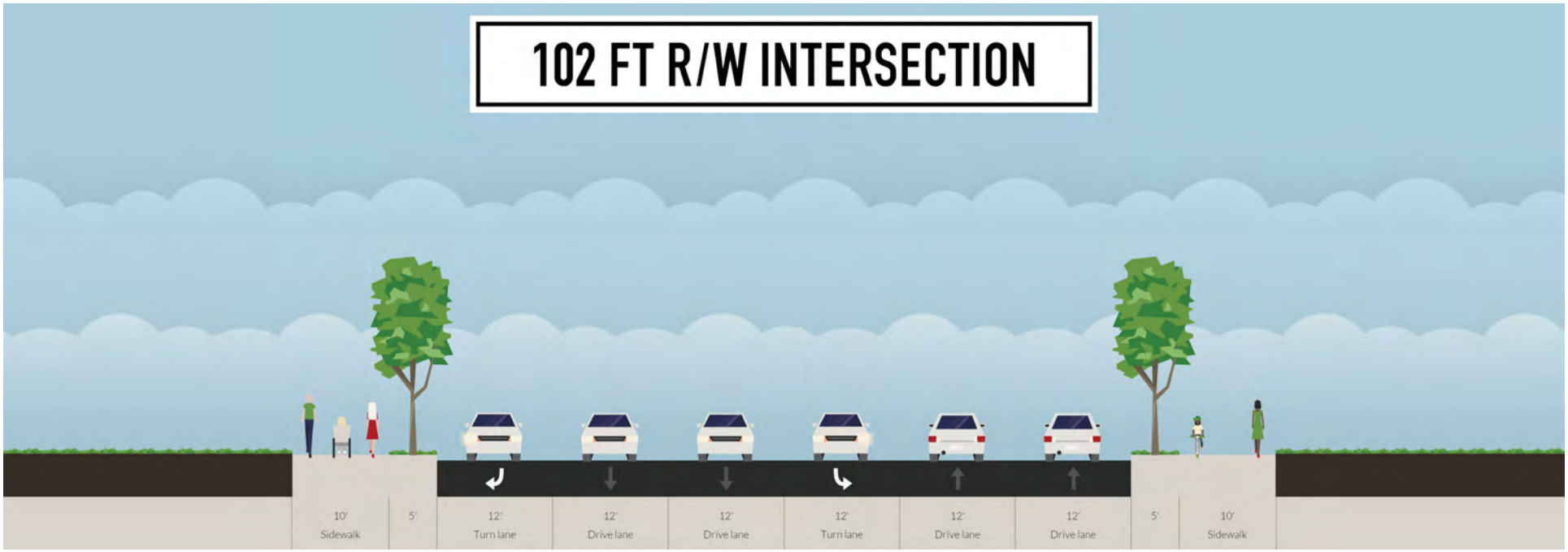
FA1-2
FA1-3
FA1-4
FA1-5
FA1-6
FA1-7
FA1-8
FA1-9
FA1-10
FA1-11
STATE STREET (SR38)
OLD CR 600 W
REALIGNED CR 600 W
FA1-11
N

FOCUS AREA 1 (FA1) SUB-SEGMENT TREATMENT CROSS-SECTIONS





FOCUS AREA 2 (FA2) RECOMMENDATIONS

FA2 GOAL 1 Improve safety for all users.

- OBJECTIVE 2.1.1 Convert Enterprise Drive to right-in, right-out to improve safety.

FA2 GOAL 2 Improve traffic efficiency.

- OBJECTIVE 2.2.1 Construct Diverging Diamond Interchange (DDI) at Exit 219 to improve congestion for priority movements.
- OBJECTIVE 2.2.2 Improve intersection of State Street and Heritage Way (roundabout or traffic signal).
- OBJECTIVE 2.2.3 Construct exclusive right-turn lanes at Heritage Way intersection.
- OBJECTIVE 2.2.4 Expand right of way to maximum of 90' at midblock segments to accommodate four (4) through lanes with landscaped medians, multi-use path, and dedicated left-turn lanes.
- OBJECTIVE 2.2.5 Expand right of way to maximum of 102' at intersections to accommodate four (4) through lanes with landscaped medians, multi-use path, and dedicated left-turn lanes.
- OBJECTIVE 2.2.6 Install signal coordination and communication hardware and software.

FA2 GOAL 3 Establish Focus Area 2 gateway elements.

- OBJECTIVE 2.3.1 Construct decorative features on State Street bridge over Interstate 69 to serve as a gateway.
- OBJECTIVE 2.3.2 Landscape interstate ramp quadrants to enhance gateway elements of Exit 219.
- OBJECTIVE 2.3.3 Landscape medians and planting strips to extend corridor identity elements.

FA2 GOAL 4 Increase Focus Area 1 and Focus Area 3 connectivity.

- OBJECTIVE 2.4.1 Ensure that future business and residences have access to multi-modal improvements.
- OBJECTIVE 2.4.2 Ensure access management principles reflected in land-use ordinances allow maximum site access along corridor.

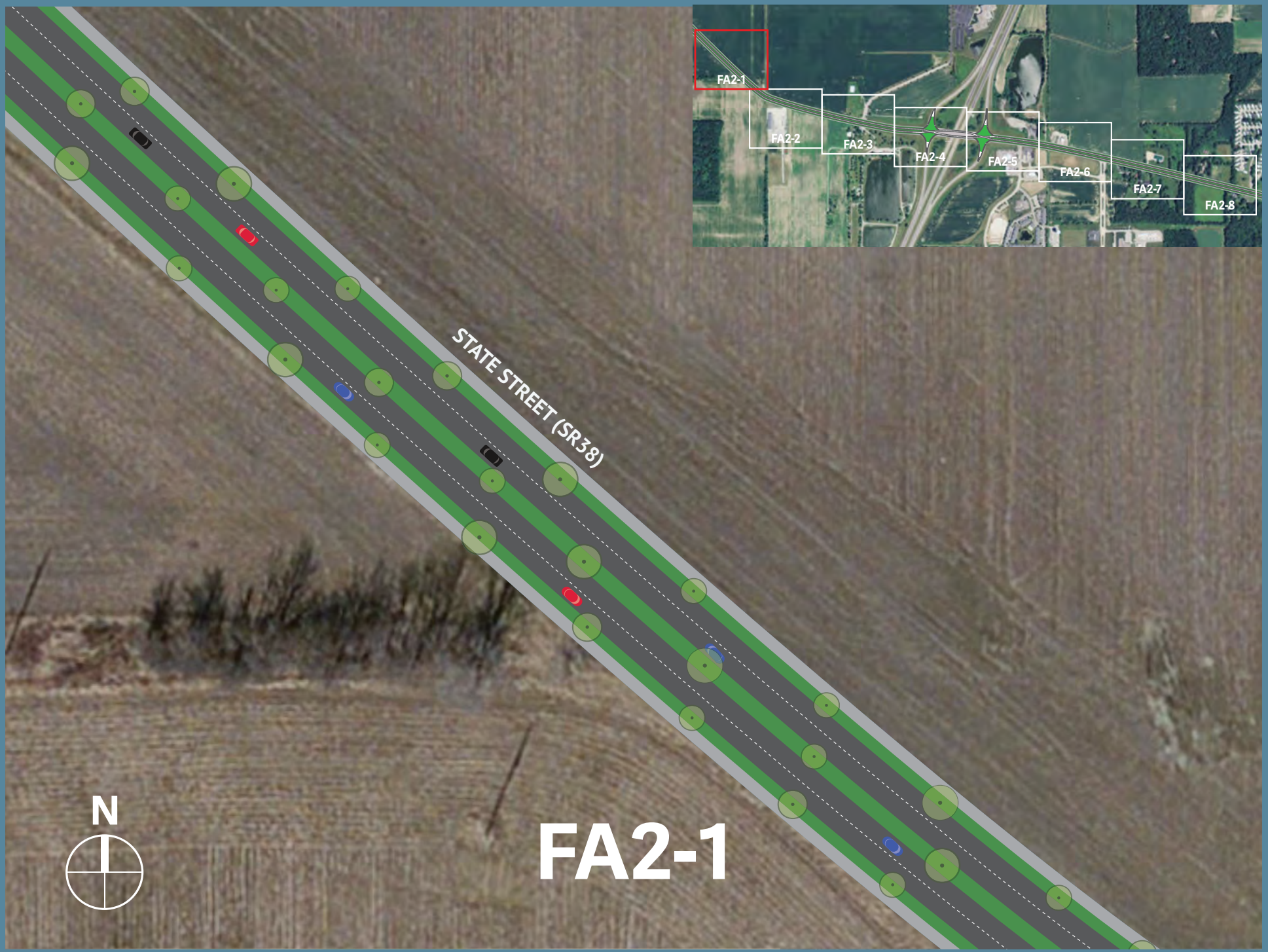
FA2 GOAL 5 Ensure corridor improvements enhance and retain business development.

- OBJECTIVE 2.5.1 Ensure Heritage Way intersection improvement is able to serve as primary access to future development sites north of Falls Pointe Business Park.

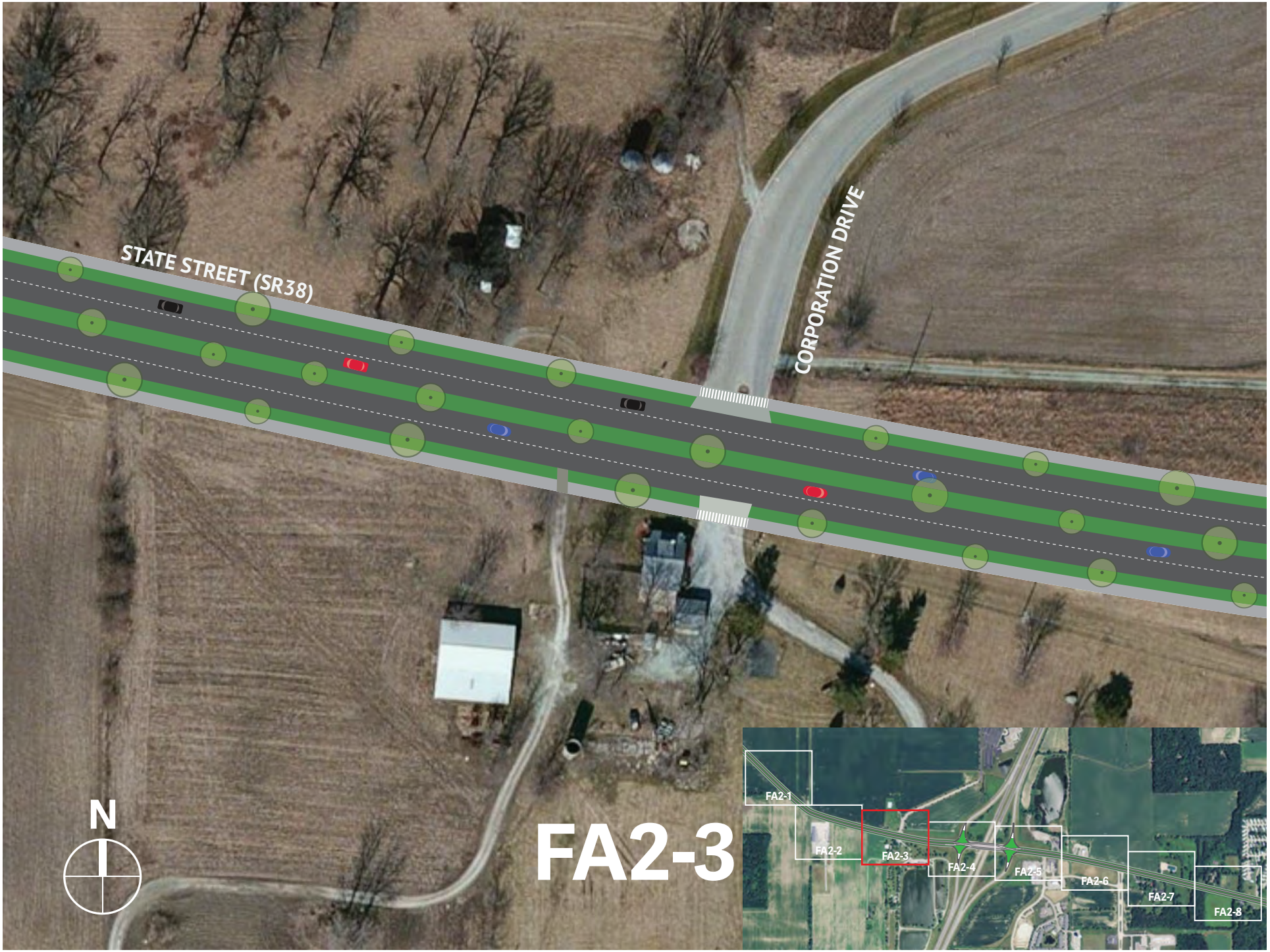
FA2 GOAL 6 Identify multi-modal options.

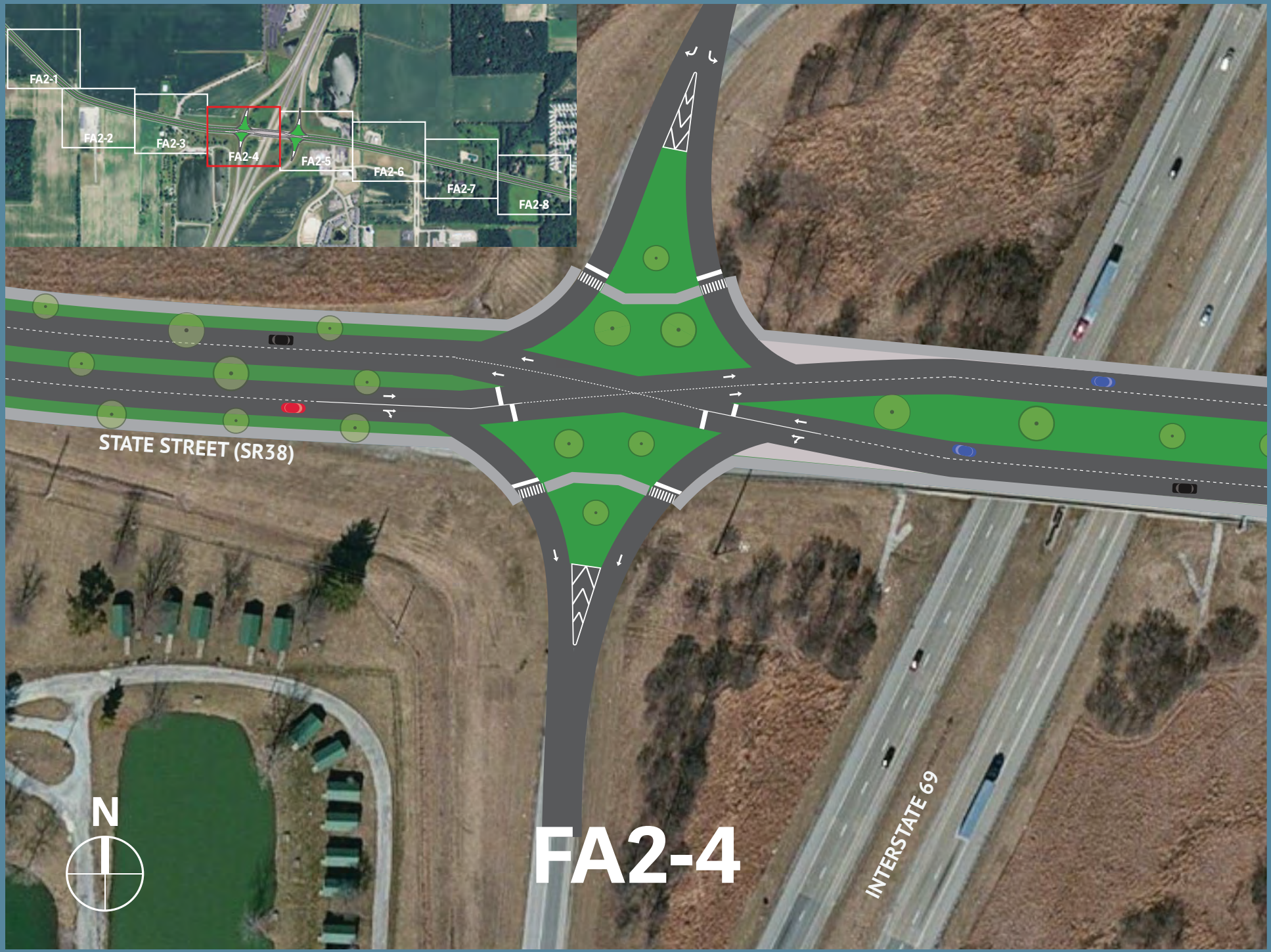
- OBJECTIVE 2.6.1 Construct 10' multi-use path on both sides of State Street.
- OBJECTIVE 2.6.2 Create bicycle/pedestrian crossing over Interstate 69 to enable safe environment to cross Interstate.

FOCUS AREA 2 (FA2) SUB-SEGMENT TREATMENT OVERVIEW

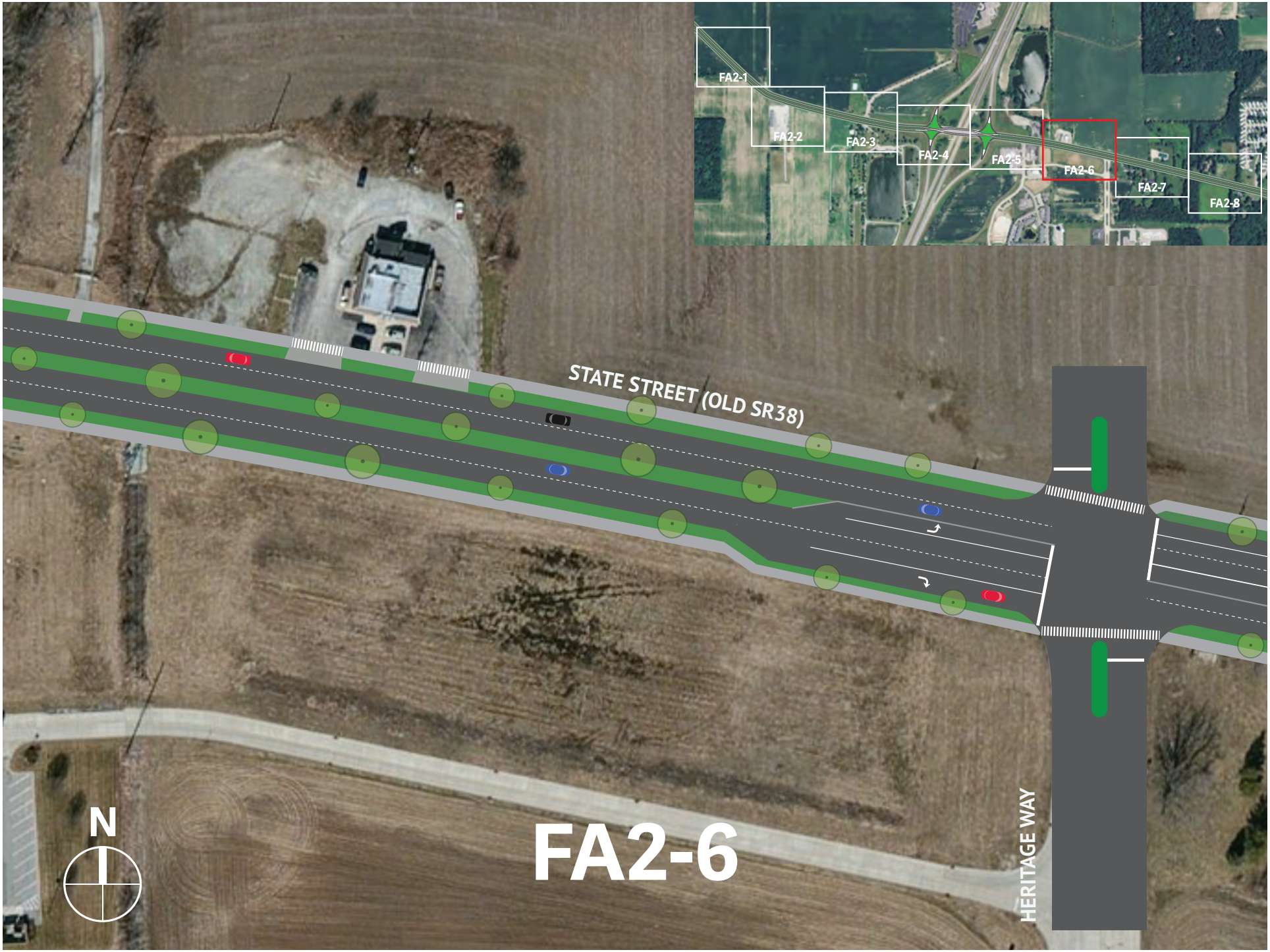

FA2-1
FA2-2
FA2-3
FA2-4
FA2-5
FA2-6
FA2-7
FA2-8
STATE STREET (SR38)
N
FA2-1

STATE STREET (SR38)
N
FA2-2
FA2-1
FA2-2
FA2-3
FA2-4
FA2-5
FA2-6
FA2-7
FA2-8

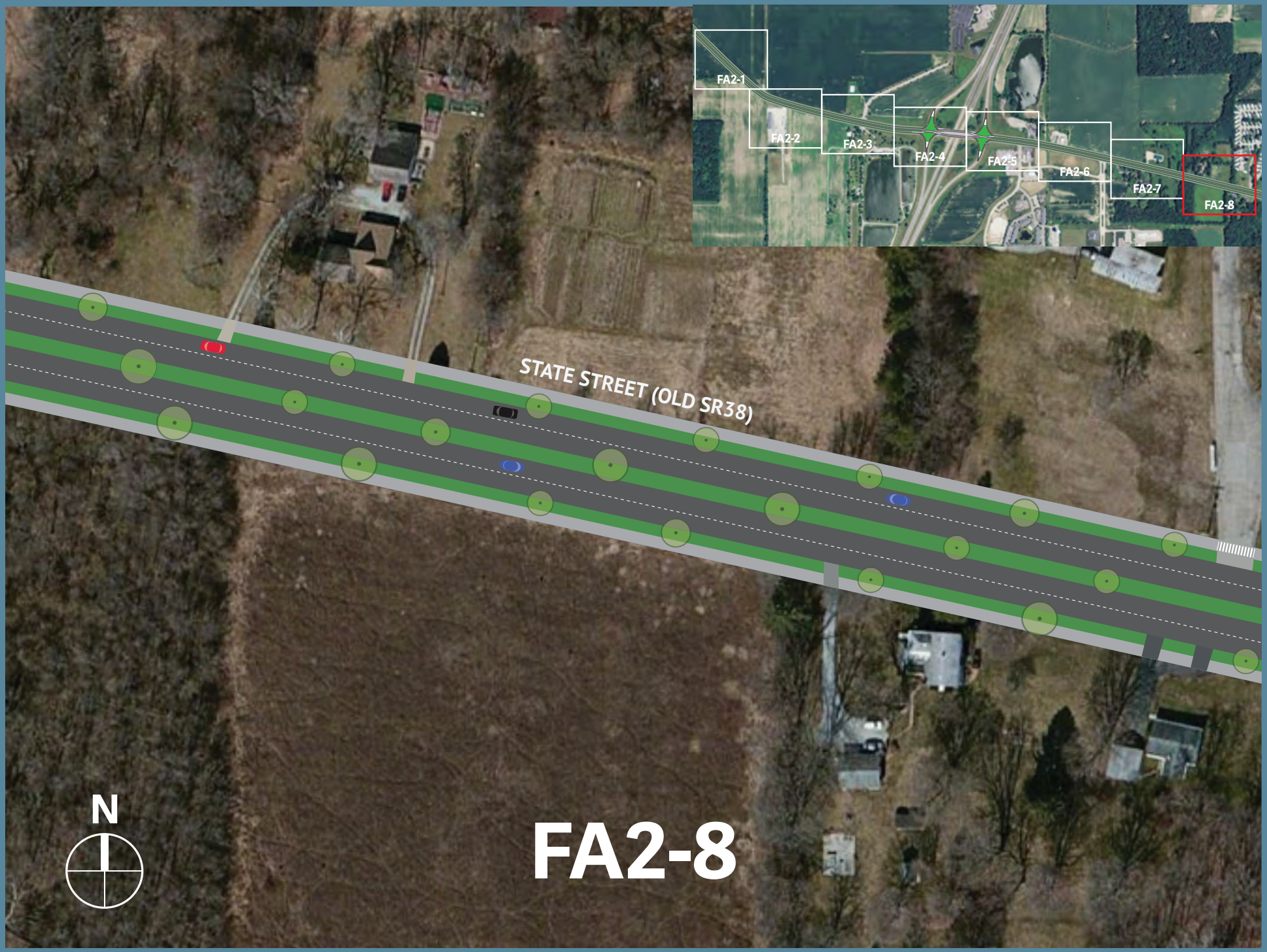

STATE STREET (SR38)
CORPORATION DRIVE
N
FA2-3
FA2-1
FA2-2
FA2-3
FA2-4
FA2-5
FA2-6
FA2-7
FA2-8


FA2-1
FA2-2
FA2-3
FA2-4
FA2-5
FA2-6
FA2-7
FA2-8
STATE STREET (SR38)
INTERSTATE 69
N
FA2-4

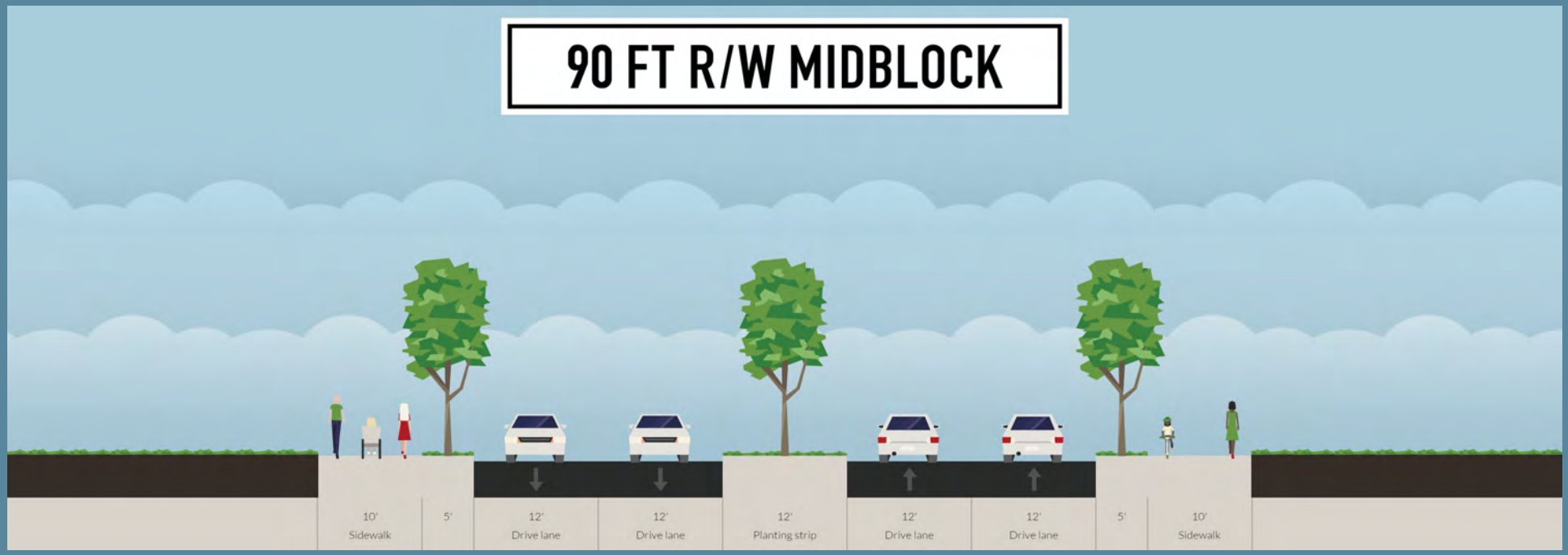
FA2-1
FA2-2
FA2-3
FA2-4
FA2-5
FA2-6
FA2-7
FA2-8
STATE STREET (OLD SR38)
ENTERPRISE DRIVE
N
FA2-5

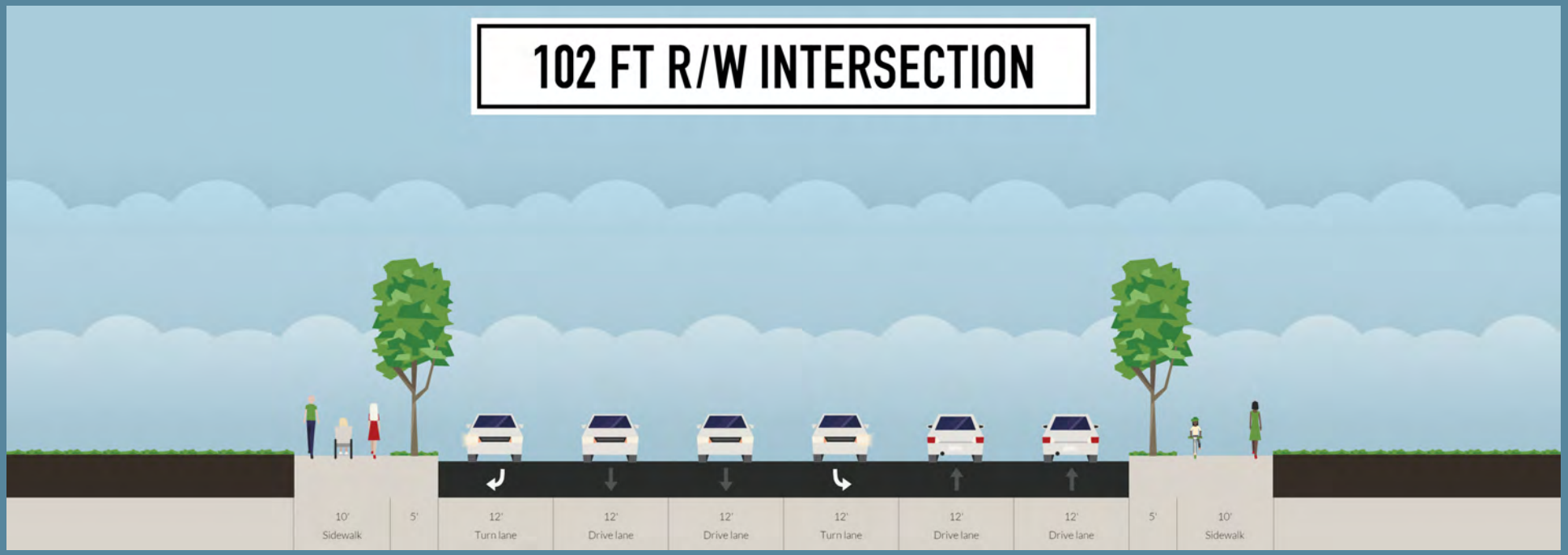

FA2-1
FA2-2
FA2-3
FA2-4
FA2-5
FA2-6
FA2-7
FA2-8
STATE STREET (OLD SR38)
HERITAGE WAY
N
FA2-6

FA2-1
FA2-2
FA2-3
FA2-4
FA2-5
FA2-6
FA2-7
FA2-8
STATE STREET (OLD SR38)
N
FA2-7

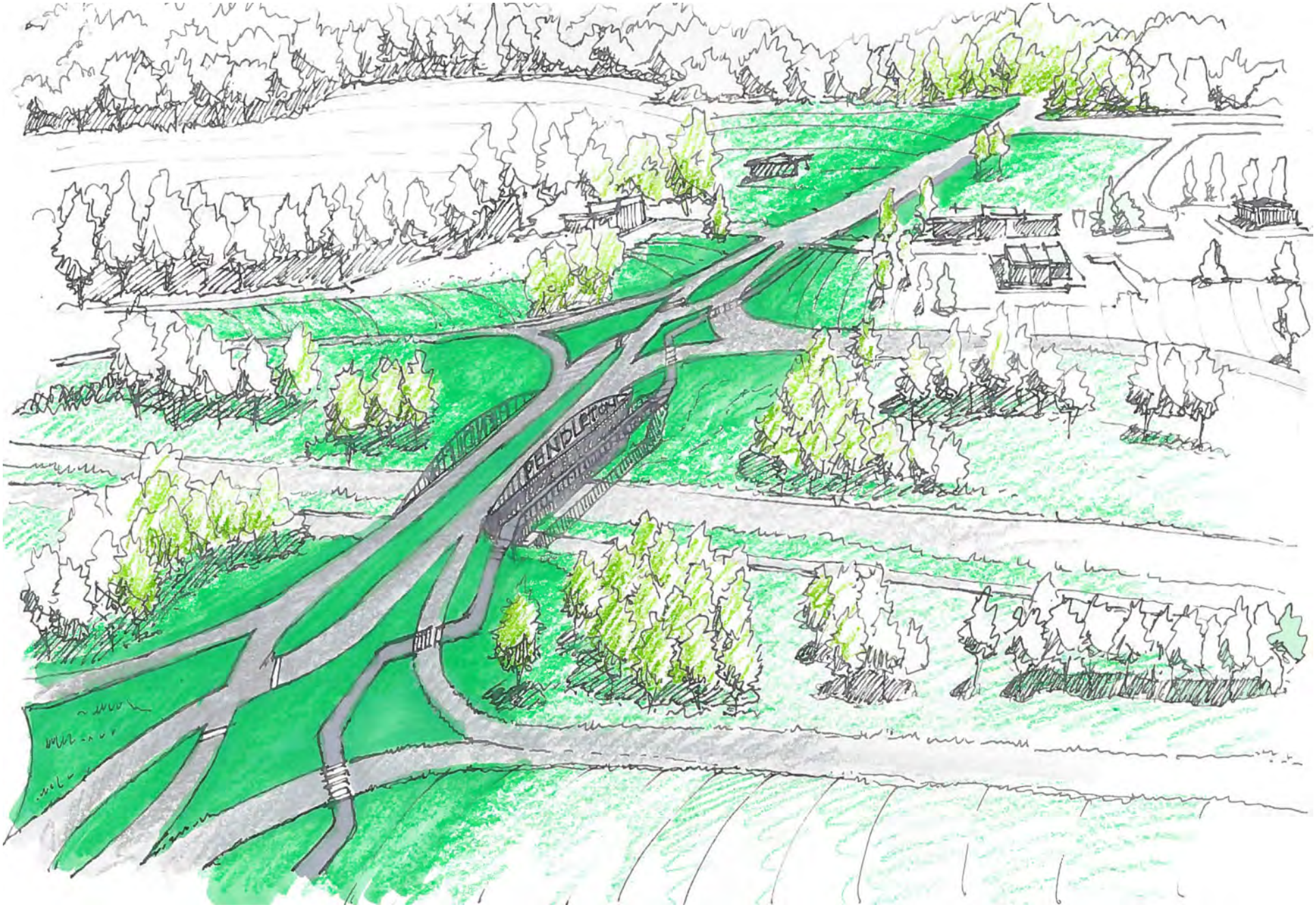

FA2-1
FA2-2
FA2-3
FA2-4
FA2-5
FA2-6
FA2-7
FA2-8
STATE STREET (OLD SR38)
N
FA2-8

FOCUS AREA 2 (FA2) SUB-SEGMENT TREATMENT CROSS-SECTIONS





Artistic rendering of Interstate 69 interchange with State Street (Exit 219) at Falls Pointe Business Park



FOCUS AREA 3 (FA3) RECOMMENDATIONS

FA3 GOAL 1 Improve safety for all users.

- OBJECTIVE 3.1.1 Add pedestrian bump-outs at the intersections of State Street with Main Street and Pendleton Avenue to increase pedestrian visibility and decrease crossing distance.

FA3 GOAL 2 Improve traffic efficiency.

- OBJECTIVE 3.2.1 Add left-turn lane with dedicated permissive-protected operations and full-actuation at Main Street.
- OBJECTIVE 3.2.2 Add left-turn lane with dedicated permissive-protected operations and full-actuation at Pendleton Avenue.
- OBJECTIVE 3.2.3 Install signal coordination and communication hardware and software.

FA3 GOAL 3 Identify gateway elements.

- OBJECTIVE 3.3.1 Extend corridor identity elements by expanding right of way to 58' between Fall Creek Drive and Franklin Street.

FA3 GOAL 4 Ensure corridor improvements enhance and retain business development.

- OBJECTIVE 3.4.1 Ensure access management principles reflected in land-use ordinances reduce congestion within focus area by restricting direct driveway access to State Street.

FA3 GOAL 5 Establish a Downtown parking plan.

- OBJECTIVE 3.5.1 Conduct parking turn-over and utilization study.
- OBJECTIVE 3.5.2 Use parking turn-over and utilization study to address any perceived or actual capacity deficiencies in downtown parking.

FA3 GOAL 6 Identify multi-modal options.

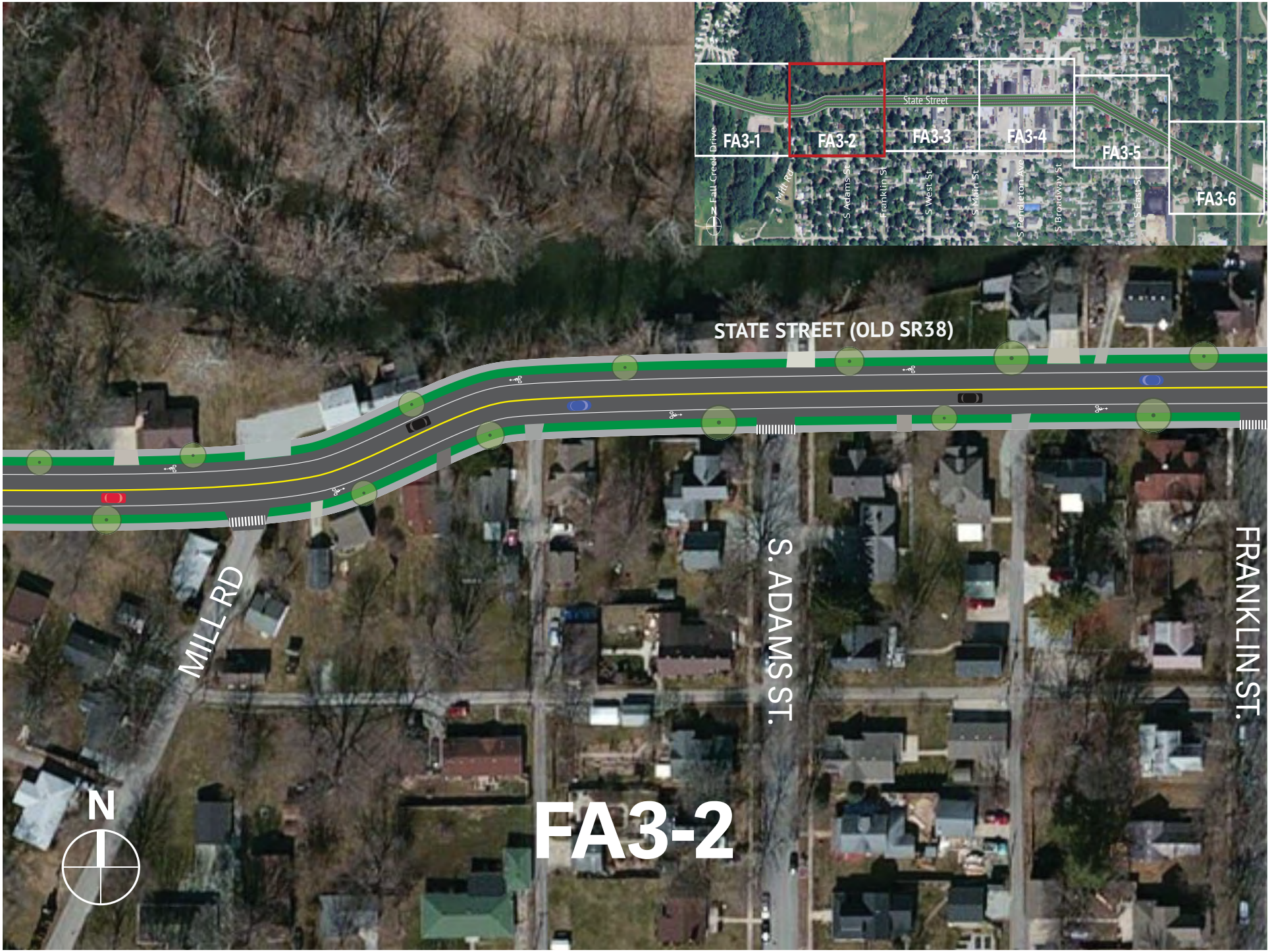
- OBJECTIVE 3.6.1 Construct multi-use pathway to the terminus existing sidewalk network located at the intersection of State Street and Adams Street.
- OBJECTIVE 3.6.2 Convert existing on-street parking to dedicated bike lanes from Fall Creek Drive to Main Street.
- OBJECTIVE 3.6.3 Install sharrow pavement-markings and other bicycle awareness signage from Main Street to State Road 67.

FA3 GOAL 7 Ensure corridor improvements are context-sensitive and enhance residential charm.

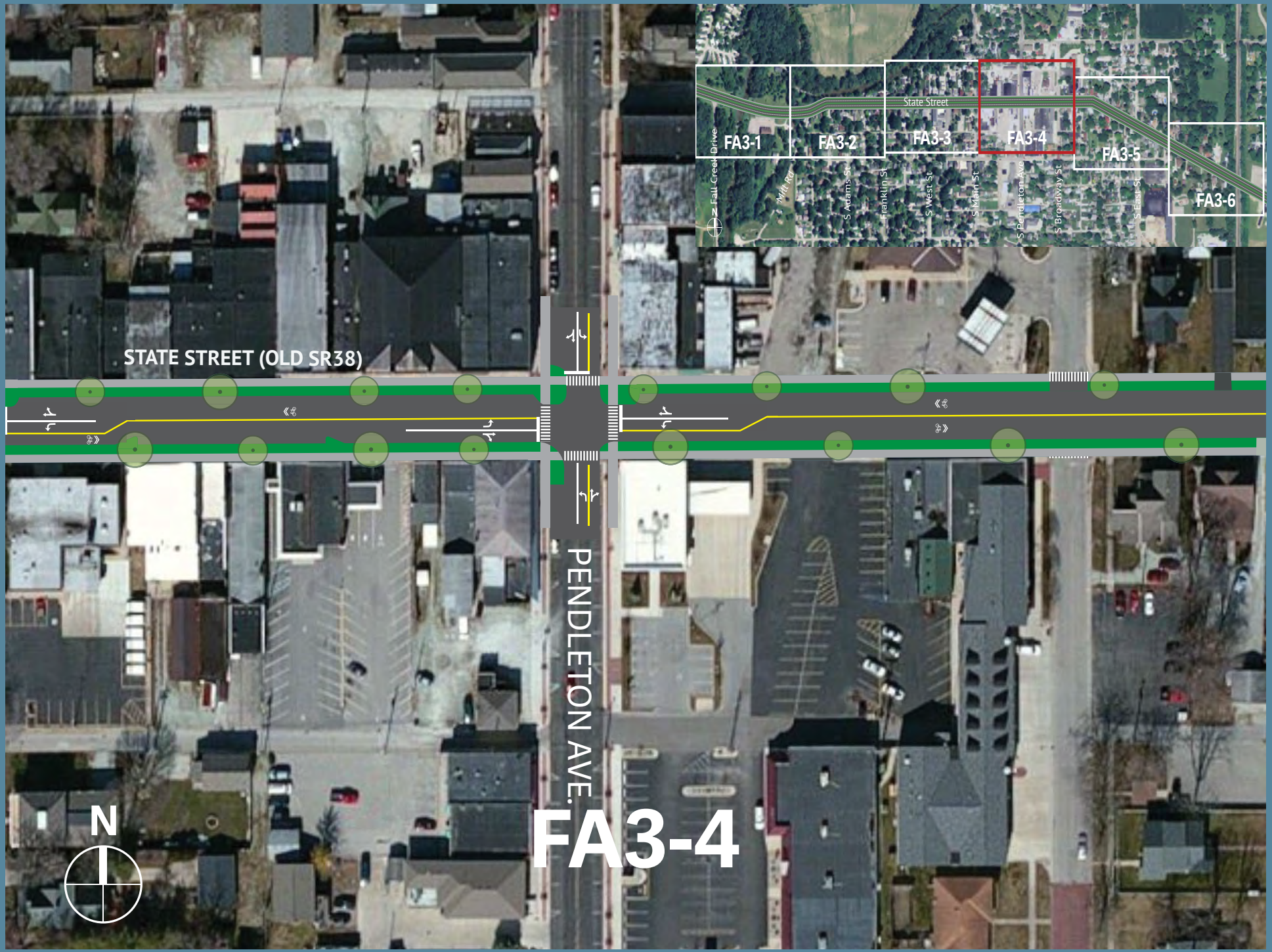
- OBJECTIVE 3.7.1 Ensure adequate historic reviews take place prior to any improvements.
- OBJECTIVE 3.7.2 Ensure that decorative themes and materials are in accordance with the historic era and charm of Downtown Pendleton.
- OBJECTIVE 3.7.3 Ensure that future roadway improvements do not negatively detract from historic nature of Downtown Pendleton.

FOCUS AREA 3 (FA3) SUB-SEGMENT TREATMENT OVERVIEW

FA3-1
FA3-2
FA3-3
FA3-4
FA3-5
FA3-6
State Street
W Fall Creek Drive
Mill Rd
S Adams St
Franklin St
S West St
S Main St
S Pendleton Ave
S Broadway St
S East St
STATE STREET (OLD SR38)
W FALL CREEK DRIVE
N
FA3-1


STATE STREET (OLD SR38)
MILL RD
S. ADAMS ST.
FRANKLIN ST.
FA3-2
N
State Street
FA3-1
FA3-2
FA3-3
FA3-4
FA3-5
FA3-6
Fall Creek Drive
Mill Rd
S Adams St
Franklin St
S West St
S Main St
S Pendleton Ave
S Broadway St
S East St

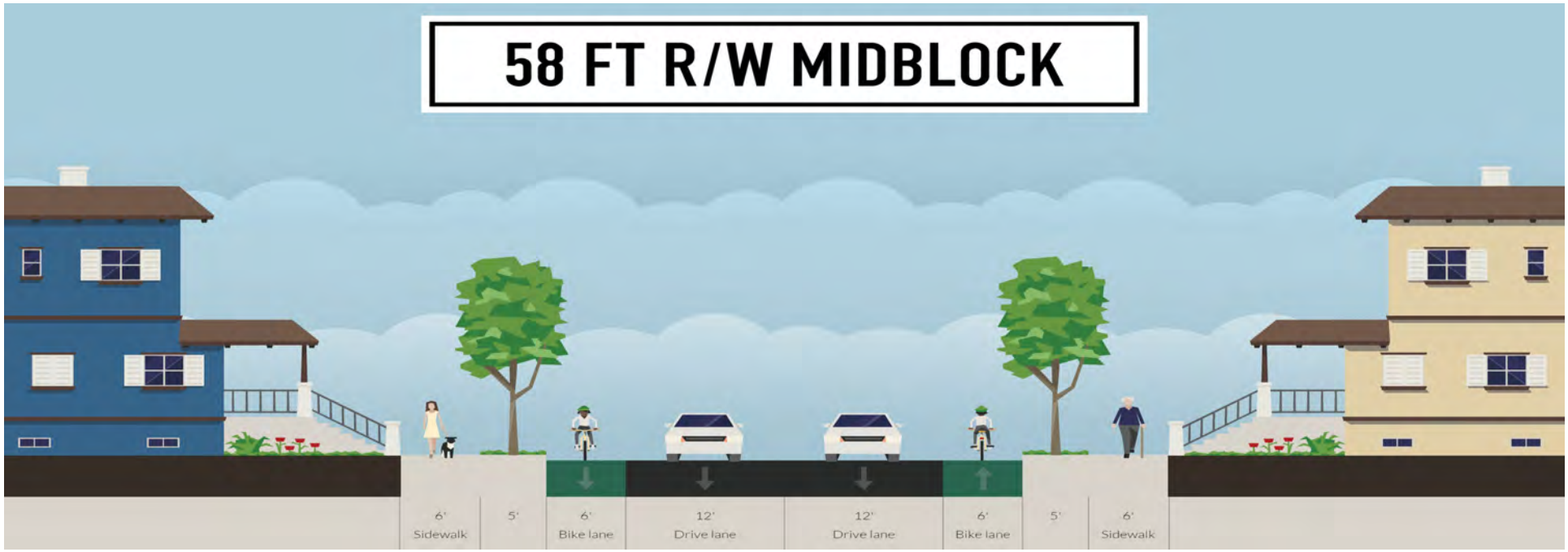
STATE STREET (OLD SR38)
WEST ST.
MAIN ST.
FA3-3
N
State Street
FA3-1
FA3-2
FA3-3
FA3-4
FA3-5
FA3-6
Fall Creek Drive
Mill Rd
S Adams St
Franklin St
S West St
S Main St
S Pendleton Ave
S Broadway St
S East St

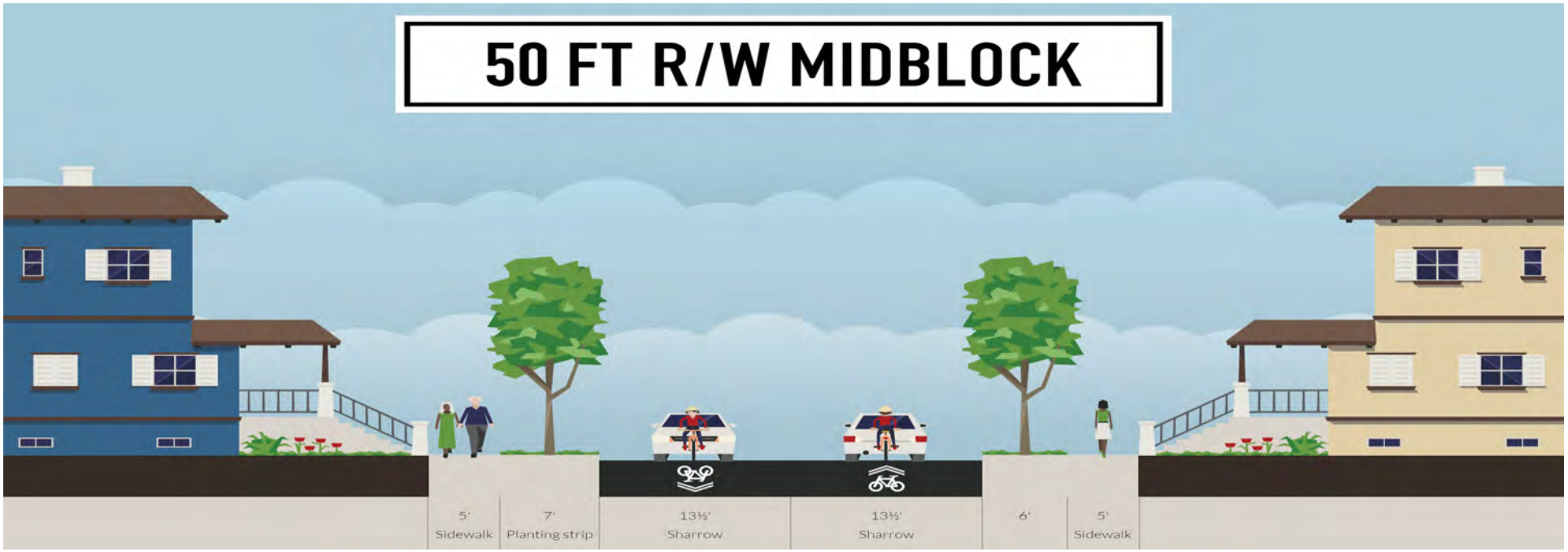

STATE STREET (OLD SR38)
PENDLETON AVE.
FA3-4
N
State Street
FA3-1
FA3-2
FA3-3
FA3-4
FA3-5
FA3-6
Fall Creek Drive
Mill Rd
S Adams St
Franklin St
S West St
S Main St
S Pendleton Ave
S Broadway St
S East St

STATE STREET (OLD SR38)
CAROLINE ST.
JOHN ST.
EAST ST.
FA3-5
N
State Street
FA3-1
FA3-2
FA3-3
FA3-4
FA3-5
FA3-6
Fall Creek Drive
Mill Rd
S Adams St
Franklin St
S West St
S Main St
S Pendleton Ave
S Broadway St
S East St

STATE STREET (OLD SR38)
FA3-6
CSX RAILROAD
N
State Street
FA3-1
FA3-2
FA3-3
FA3-4
FA3-5
FA3-6
Fall Creek Drive
Mill Rd
S Adams St
Franklin St
S West St
S Main St
S Pendleton Ave
S Broadway St
E State St

FOCUS AREA 3 (FA3) SUB-SEGMENT TREATMENT CROSS-SECTIONS





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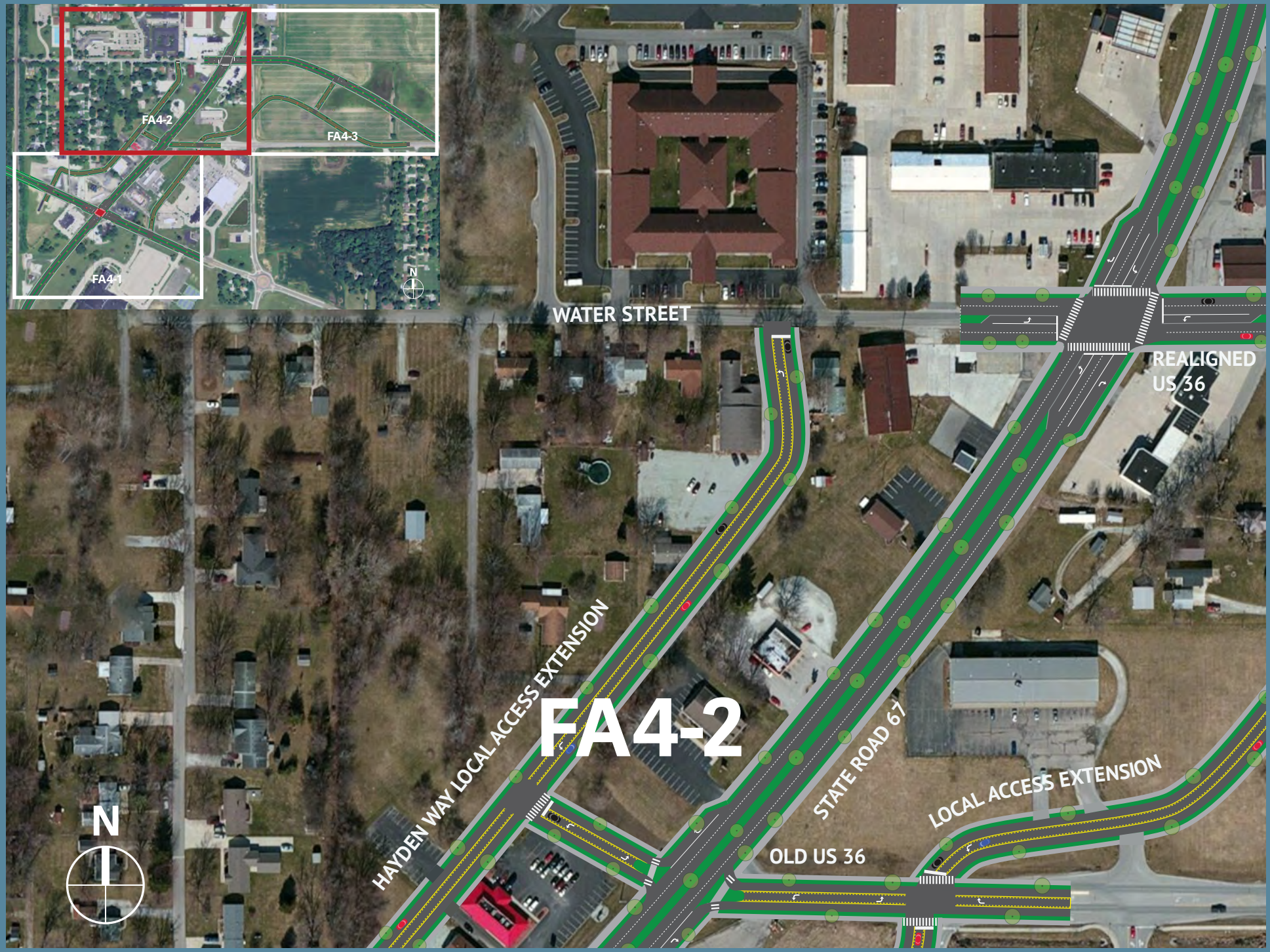
FOCUS AREA 4 (FA4) RECOMMENDATIONS

FA4 GOAL 1	Improve safety for all users.	
	OBJECTIVE 4.1.1	Create pedestrian refuge islands at intersection of State Street and State Road 67.
	OBJECTIVE 4.1.2	Implement full-access control along State Street and State Road 67 corridors, allowing no new driveway cuts.
	OBJECTIVE 4.1.3	Work with existing business owners to consolidate driveway cuts, relocate driveway cuts to local access roadways, and prioritize driveways within intersection influence zone.
FA4 GOAL 2	Establish gateway elements.	
	OBJECTIVE 4.2.1	Landscape pedestrian refuge islands at intersection of State Street and State Road 67.
	OBJECTIVE 4.2.2	Add textured brick surface to entire intersection space of State Street and State Road 67 to identify the area as significant.
FA4 GOAL 3	Increase connectivity with focus area 3.	
	OBJECTIVE 4.3.1	Expand the local access road network to provide better site access for redevelopment and new development. Local access roadways should have 58' cross-section with two-way left-turn lane and sidewalks or pathways.
	OBJECTIVE 4.3.2	Extend Hayden Drive to Central Way to serve as local site access for businesses on west side of State Road 67.
FA4 GOAL 4	Improve traffic efficiency.	
	OBJECTIVE 4.4.1	Increase signal spacing between the intersections of State Road 67 and US 36 and State Road 67 and State Street by realigning US 36 with Water Street.
	OBJECTIVE 4.4.2	Expand right of way to 90' at mid-block for State Road 67 and State Street to accommodate four (4) through lanes with landscaped medians, multi-use path, and dedicated left-turn lanes.
	OBJECTIVE 4.4.3	Expand right of way to 102' at intersections for State Road 67 and State Street to accommodate four (4) through lanes with landscaped medians, multi-use path, and dedicated left-turn lanes.
	OBJECTIVE 4.4.4	Install signal coordination and communication hardware and software.
	OBJECTIVE 4.4.5	Convert Old-U.S. 36 entrance to right in, right out (RIRO).
FA4 GOAL 5	Ensure corridor improvements enhance and retain business development.	
	OBJECTIVE 4.5.1	Expansion of local access road network to provide better site access for redevelopment and new development.
FA4 GOAL 6	Identify multi-modal options.	
	OBJECTIVE 4.6.1	Build 10' trail network parallel State Street and State Road 67.

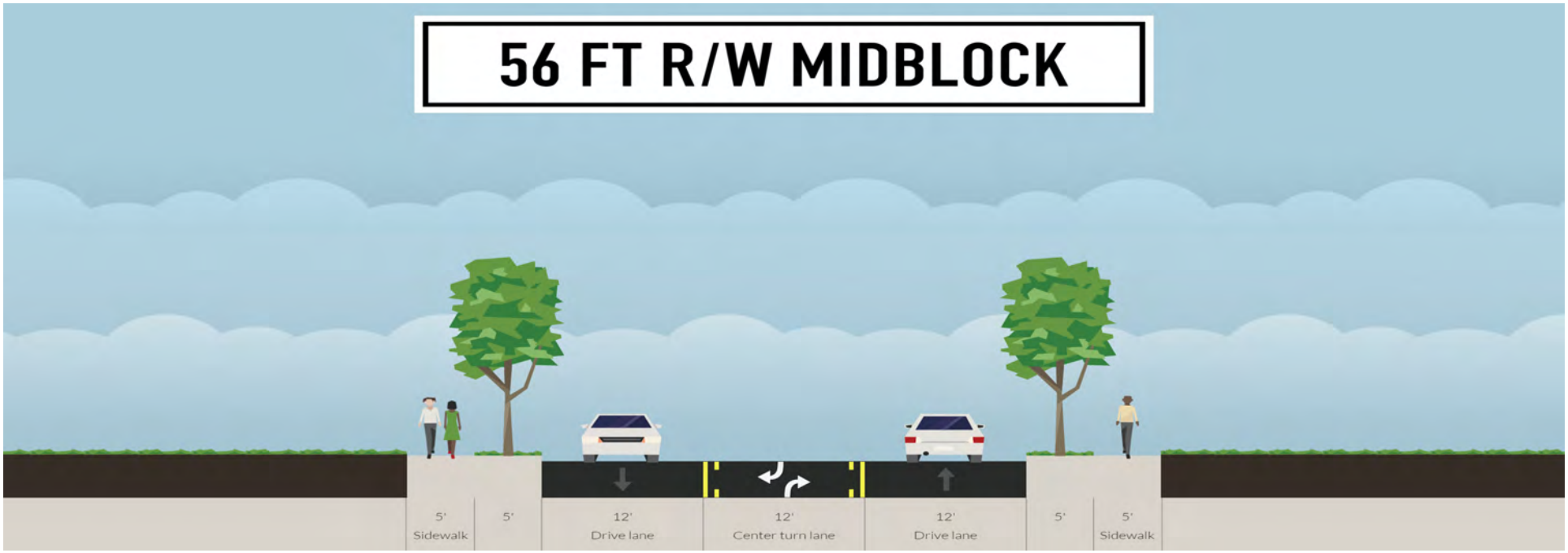
FOCUS AREA 4 (FA4) SUB-SEGMENT TREATMENT OVERVIEW

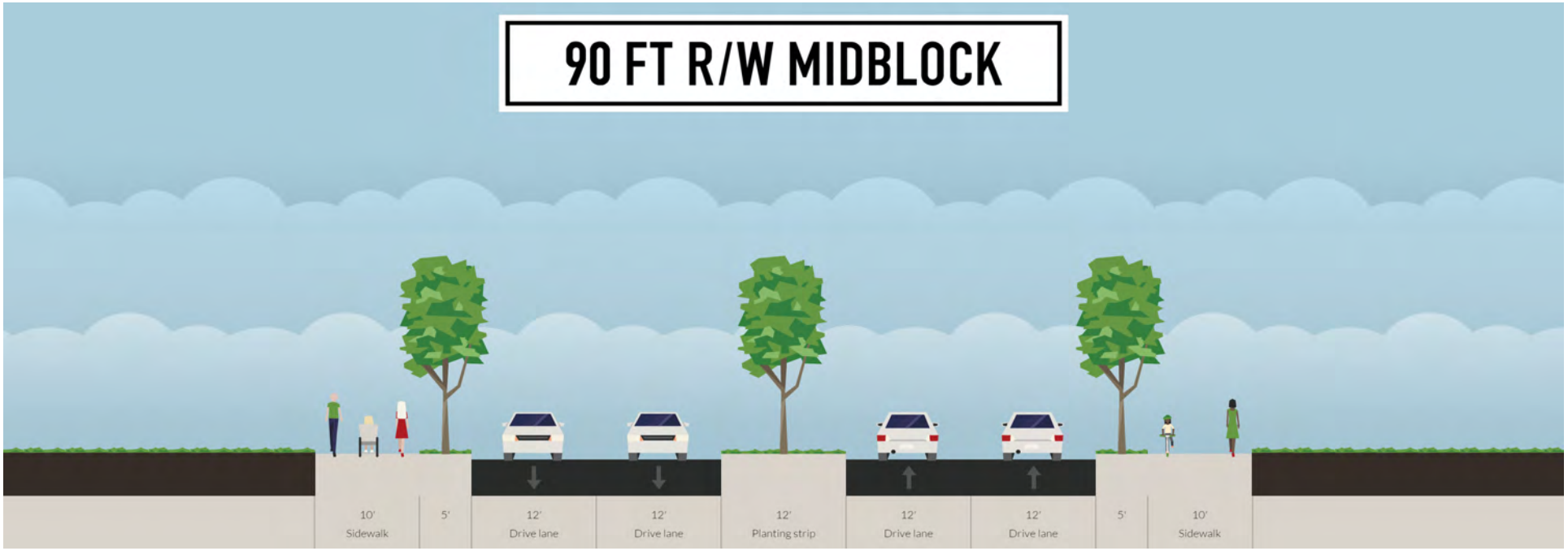
HAYDEN WAY LOCAL ACCESS EXTENSION
STATE ROAD 67
MARSH PLAZA LOCAL ACCESS
STATE STREET (OLD SR38)
STATE STREET (SR38)
N
FA4-1
FA4-2
FA4-3
FA4-1
N

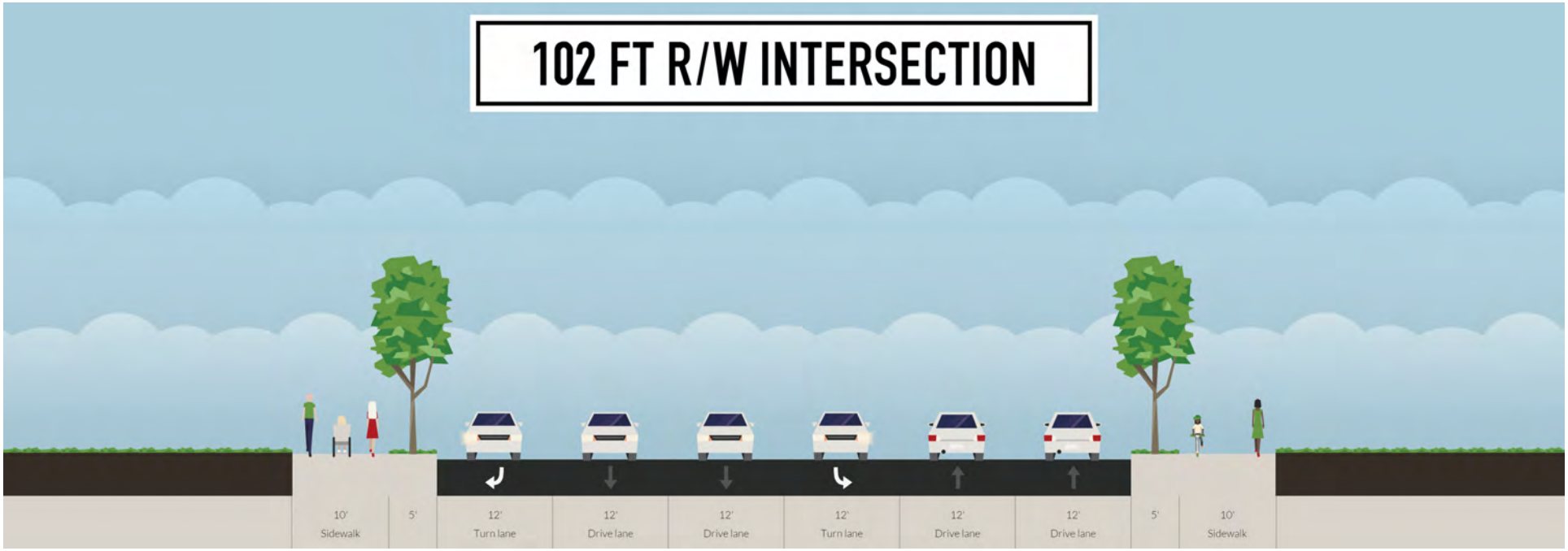

FA4-1
FA4-2
FA4-3
N
WATER STREET
REALIGNED
US 36
HAYDEN WAY LOCAL ACCESS EXTENSION
FA4-2
STATE ROAD 67
LOCAL ACCESS EXTENSION
OLD US 36
N

FA4-2
FA4-3
FA4-1
N
REALIGNED US36
LOCAL ACCESS EXTENSION
N
FA4-3
OLD US36

FOCUS AREA 4 (FA4) SUB-SEGMENT TREATMENT CROSS-SECTIONS






102 FT R/W INTERSECTION
10'
Sidewalk
5'
12'
Turn lane
12'
Drive lane
12'
Drive lane
12'
Turn lane
12'
Drive lane
12'
Drive lane
5'
10'
Sidewalk